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THE

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Vol. XVIII, Part I Issued 31st December, 1960

Taxonomic Notes on Ficus Linn., Asia and Australasia

V. SUBGEN. FICUS SECT. RHIZOCLADUS, KALOSYCE, SINOSYCIDIUM, ADENOSPERMA, AND NEOMORPHE

By E. J. H. CORNER

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Summary

sect. *Rhizocladus* Endl.

New series and subseries:—ser. *Plagiostigmaticae* Corner, subser. *Plagiostigmaticae,* subser. *Pogonotropheae* (Miq.) Corner; ser. *Ramentaceae* Corner, subser. *Pantonianae* Corner, subser. *Balanotae* Corner, subser. *Irritantes* Corner, subser. *Ramentaceae,* subser. *Excavatae* Corner, subser. *Araneosae* Corner: ser. *Distichoideae* Corner:; ser. *Distichae* Corner; ser. *Trichocarpeae* Corner.

Earlier specific names and resulting combinations:—*F. sarmentosa* B. Ham. ex J. E. Sm. (*F. foveolata* Wall.), var. *duclouxii* (Lévl. et Vant.) Corner, v. *henryi* (King) Corner, v. *impressa* (Champ.) Corner, v. *lacrymans* (Lévl.) Corner, v. *luducca* (Roxb.) Corner et f. *sessilis* Corner, v. *nipponica* (Fr. et Sav.) Corner, v. *thunbergii* (Maxim.) Corner; *F. sagittata* Vahl (*F. ramentacea* Roxb.) v. *adhaerens* (Miq.) Corner, v. *minor* Corner, v. *oligosperma* (Miq.) Corner; *F. hederacea* Roxb. (*F. scandens* Roxb.); *F. trichocarpa* Bl. v. *borneensis* (Miq.) Corner, v. *obscura* (Hassk.) Corner, v. *piperifolia* (Miq.) Corner.

New species:—*F. amblisyce* Corner, *F. devestiens* Corner, *F. ceanothifolia* Corner, *F. oxymitroides* Corner, *F. sphaerocarpa* Corner, *F. spiralis* Corner, *F. uncinulata* Corner, *F. pendens* Corner et var. *appressa* Corner, *F. supperforata* Corner, *F. callicarpides* Corner, *F. detonsa* Corner, *F. phaeobullata* Corner, *F. semilanata* Corner, *F. cinnamomea* Corner, *F. hypophaeola* Corner.

New varieties:—*F. pubigera* Wall. v. *anserina* Corner, v. *maliformis* (King) Corner; *F. pumila* Linn. v. *awkeotsang* (Makino) Corner; *F. laevis* Bl. v. *macrocarpa* (Miq.) Corner; *F. pantoniana* King v. *colobocarpa* Diels ex Corner, v. *rhytidophloea* Corner; *F. odoardi* King v. *glabrata* Corner; *F. baeuerleni* King v. *vulcaniformis* Corner; *F. villosa* Bl. v. *appressa* Corner, v. *subglobosa* Corner, v. *tonsa* Corner; *F. recurva* Bl. v. *bridelioides* Corner, v. *elegantior* Corner, v. *lasiocarpa* Corner, v. *pedicellata* Corner; *F. lanata* Bl. v. *foveolata* Corner; *F. distichoidea* Diels v. *megacarpa* Corner; *F. phatnophylla* Diels v. *glochidioides* Corner, v. *meiocarpa* (Diels) Corner; *F. agapetoides* Diels v. *solomonensis* Corner; *F. nasuta* Summerh. v. *glabrata* Corner.

sect. *Kalosyce* (Miq.) Corner.

New series and subseries:—ser. *Apiocarpeae* Corner, ser. *Punctatae* Corner, subser. *Punctatae,* subser. *Ruginerviae* Corner.

Earlier specific epithet and resulting combinations:—*F. aurantiacea* Griff. (*F. callicarpa* Miq.), v. *angustifolia* Corner, v. *parvifolia* Corner.

New species:—*F. ruginervia* Corner.

New varieties:—*F. apiocarpa* Miq. v. *villosa* Corner; *F. scratchleyana* King v. *aurantiola* Corner, v. *rhopalosycia* (Diels) Corner.

sect. *Sinosycidium* Corner; *F. tsiangii* Merr. ex Corner.

sect. *Adenosperma* Corner.

Earlier specific epithets:—*F. mollior* F.v.M. ex Benth. (*F. gazellae* Engl.), *F. casearioides* King (*F. hylobia* Diels), *F. erythrosperma* Miq. (*F. pycnoneura* Laut. et K. Schum.).

New species:—*F. saccata* Corner, *F. verticillaris* Corner et var. *robusta* Corner, *F. austrina* Corner, *F. tenella* Corner, *F. funiculosa* Corner.

New varieties:—*F. mollior* F.v.M. v. *pseudocovellia* Corner, v. *sessilis* Corner et f. *riparia* Corner; *F. adenosperma* Miq. v. *adenosperma* f. *angustifolia* Corner, v. *chaetophora* (Warb.) Corner, v. *glabra* Corner, v. *microlepis* Corner; *F. casearioides* King v. *gamosepala* Corner; *F. trichocerasa* Diels v. *glabristipula* Corner.

sect. *Neomorphe* King.

New series and subseries:—ser. *Auriculatae* Corner, ser. *Variegatae* Corner, subser. *Variegatae* et subser. *Laciniatae* Corner.

New species:—*F. robusta* Corner, *F. semivestita* Corner.

New varieties: *F. variegata* Bl. v. *garciae* (Elmer) Corner, v. *ilangoides* (Elmer) Corner, var. *sycomoroides* (Miq.) Corner.

SUBGEN. FICUS SECT. RHIZOCLADUS ENDL.

Gen. Pl. Suppl. IV, 2 (1847) 34. Typus:—*F. pumila* Linn.—This section has never been employed but it is a good one for most climbing figs usually assigned to sect. *Ficus* (*Eusyce*). The habit of climbing with adventitious roots from the nodes, while retaining attachment with the soil and not becoming epiphytic, occurs also in sect. *Kalosyce* (*Synoecia*). Both sections agree in the oblong compressed seed, often narrowly winged, and this shape is diagnostically different from the lenticular, reniform, or tuberculate seed of sect. *Ficus*. In sect. *Rhizocladus* the male flower has two stamens, in *Kalosyce* only one. In both there are neuter flowers in the seed-fig in place of the male in the gall-fig, and sect. *Kalosyce* is distinguished by the abundance of stalked neuter flowers throughout the seed-fig. The two sections might be considered as a fifth subgenus, developed predominantly in the Malaysian high forest, but the floral details agree so closely with those of subgen. *Ficus* that I prefer to leave them as sections. In sect. *Rhizocladus* I distinguish five series and eight subseries.

ser. **Plagiostigmaticae** Corner ser. nov.—*Varinga* Raf. Sylv. Tellur. (1838) 58.—*Tenorea* Gasp. Parl. Giorn. Bot. 2 (1844) 214; Ann. Sci. Nat. ser. 3, 3 (1845) 343.—*Plagiostigma* Zucc. Fl. Jap. Fam. Nat. 2 (1846) 98 (nom. nud.); Benth. et Hook. Gen. Plant. 3 (1880) 1224.—*Ficus* sect. *Plagiostigma* (Zucc.) Miq. Hook. Lond. J. Bot. 7 (1848) 436.—subgen. *Plagiostigma* (Zucc.) Miq. Ann. Mus. Bot. Lugd. Bat. 3 (1867) 294.—Antherae mucronatae, filamenta libera v. leviter connata. Flores masculi et neutri ostiolares. Receptacula maturitate lutea, brunneo-lutea, v. purpureo-nigra, haud rubra (? *F. laevis*), otiolo haud v. vix depresso: bracteis basalibus persistentibus: setis internis copiosis: cellulis scleroticis nullis. Cystolitha hypogena. India, China, Japan to Sumatra, Java, and Borneo, 4 spp. Typus:—*F. pumila* Linn.

subser. **Plagiostigmaticae.**—Folia disticha, supra nervis nervulisque leviter elevatis, subtus areolis foveolatis v. nervulis reticulatis bene elevatis: bathyphylla bene evoluta, minora, appressa,

brevipetiolata, saepe asymmetrica. Receptacula axillaria, pedunculata sed raro pedicellata. 3 spp. Typus:—*F. pumila* Linn.

subser. **Pogonotropheae** (Miq.) Corner subser. nov.—*Pogonotrophe* Miq. Hook. Lond. J. Bot. 6 (1847) 525.—*Ficus* subgen. *Pogonotrophe* Miq. Ann. Mus. Bot. Lugd. Bat. 3 (1867) 293.—Folia longipetiolata spiraliter disposita, saepe ovata, costis basalibus elongatis, supra nervis haud elevatis, subtus areolis planis nervulisque vix elevatis: bathyphylla vix distincta, haud appressa. Receptacula solitaria, axillaria v. cauliflora, pedunculata et saepe pedicellata. Species 1, *F. laevis* Bl.

ser. **Ramentaceae** Corner ser. nov.—*Ficus* sect. *Trematosycea* Miq. Hook. Lond. J. Bot. 7 (1848) 451.—subgen. *Trematosycea* Miq. Ann. Mus. Bot. Lugd. Bat. 3 (1867) 293 (lectotypus, *F. villosa* Bl.).—subgen. *Eumetamorphe* Sata sect. *Eusyce* (Miq.) Benth. et Hook. subsect. *Punctulifolieae* Sata, Monogr. (1944) 329, 384 (lectotypus, *F. villosa* Bl.).—Antherae mucronatae, filamenta connata saepe in pedicello communi. Flores masculi et neutri ostiolares. Receptacula axillaria v. ad ramulos defoliatos fasciculata, maturitate rubra: pedunculo brevi v. nullo, quam pedicello saepe bene evoluto breviori, v. receptacula sessilia. India, South China, usque ad Solomon Isl., 27 spp. Typus:—*F. villosa* Bl.

subser. **Pantonianae** Corner subser. nov.—Receptacula cellulis scleroticis in pariete praedita: ostiolo plus minus depresso. Cystolitha amphigena. 3 spp. Typus:—*F. pantoniana* King.

subser. **Balanotae** Corner subser. nov.—Receptacula cellulis scleroticis praedita: ostiolo haud depresso, bracteis apicalibus conspicuis. Cystolitha amphigena. 5 spp. Typus:—*F. balanota* Diels.

subser. **Irritantes** Corner subser. nov.—Receptacula cellulis scleroticis praedita: ostiolo depresso. Cystolitha amphigena. Pili rigidi irritantes. 5 spp. New Guinea. Typus:—*F. odoardi* King.

subser. **Ramentaceae.**—Receptacula cellulis scleroticis nullis (praeter *F. urnigera* Miq.): ostiolo depresso. Cystolitha amphigena. 10 spp. Typus:—*F. villosa* Bl.

subser. **Excavatae** Corner subser. nov.—Receptacula cellulis scleroticis nullis: ostiolo vix depresso. Cystolitha hypogena. Lamina saepe subtus areolis foveolatis. 4 spp. Typus:—*F. excavata* Wall. ex King.

subser. **Araneosae** Corner subser. nov.—Receptacula cellulis scleroticis praedita: ostiolo plano. Cystolitha hypergena. Floccoso-tomentosa pilis flexuosis. Species 1, *F. araneosa* King.

ser. **Distichoideae** Corner ser. nov.—Antherae non mucronatae, filamenta libera. Flores masculi et neutri ostiolares. Receptacula maturitate rubra, saepe pedunculata, pedicello nullo: bracteis basalibus plerumque caducis: ostiola depresso: setis internis nullis: cellulis scleroticis copiosis. Folia disticha parva, plerumque obtusa, nervis nervulisque subtus vix elevatis, brunneo-areolata: bathyphylla ut acrophylla sed minora. Cystolitha amphigena. Moluccas, New Guinea, Solomon Isl., 4 spp. Typus:—*F. distichoidea* Diels.

ser. **Distichae** Corner ser. nov.—*Ficus* sect. *Kissosycea* Miq. Hook. Lond. J. Bot. 7 (1848) 452 (lectotypus, *F. scandens* Roxb.).—sect. *Eusyce* (Miq.) Benth. et Hook. subsect. *Areolatifolieae* Sata, Monogr. (1944) 327, 384 (lectotypus, *F. areolata* Elmer).—Antherae non mucronatae, filamenta libera v. leviter connata. Flores masculi et neutri dispersi. Receptacula saepe pedicellata: bracteis basalibus parvis, saepe caducis: setis internis nullis v. paucis minutis: cellulis scleroticis nullis. Plus minus glabrae. Lamina sicca subtus brunneo-areolata: bathyphylla vix distincta. Cystolitha hypogena. Ceylon, India, China, usque ad ins. Philippine et Molucca, 5 spp. Typus:—*F. disticha* Bl.

ser. **Trichocarpeae** Corner ser. nov.—Antherae mucronatae longae, filamenta libera. Flores masculi et neutri dispersi, plerumque sessiles, perianthio toto gamophyllo conico. Flores feminei et cecidiophori tepalis liberis ovario longioribus: ovario cecidiophoro plerumque rufo-brunneo. Receptacula pedunculata, raro etiam pedicellata, maturitate rubra v. purpureo-nigra: ostiolo haud depresso v. vix: setis internis saepe copiosis: cellulis scleroticis copiosis v. nullis. Plerumque lamina ovata, costis lateralibus utrinsecus 3–5 (–7), intercostis numerosis, costis basalibus ad $\frac{1}{3}$–$\frac{1}{2}$ laminae elongatis. Cystolitha plerumque hypogena. Indochina, Thailand, Malaysia, Solomon Isl., New Hebrides, 13 spp. Typus: —*F. trichocarpa* Bl. (*F. obtusa* Hassk.).

ser. Plagiostigmaticae Corner subser. Plagiostigmaticae

F. pubigera Wall. ex Miq. var. **anserina** Corner v. nov.—Ramuli, petioli, costae, et receptacula pilis fulvidulis 1–3 mm. longis patentibus villosi. Ramuli 2–4 mm. crassi. Lamina –30 × 8 cm., elliptica, apice acuminata –27 mm. longo, basi subcordata v. rotundata: costis lateralibus utrinsecus 6–7, intercostis –7, subtus areolis planis, nervis nervulisque elevatis: costis basalibus utrinsecus 2, ad $\frac{1}{3}$–$\frac{1}{2}$ laminae elongatis: petiolo 12–20 mm. Receptacula corpore 40–60 × 40–50 mm., ellipsoidea v. subglobosa, ostiolo paulum depresso: pedunculo 3–15 mm. longo: bracteis basalibus 4–6 mm. longis, ovatis, acutis: pedicello 10–20

mm. longo: setis internis –1 mm. longis, copiosis. Flores cecidiophori tepalis flexuosis, inferne crassis induratis ochraceis, superne tenuibus rubris, ovario multo longioribus. Laos (Muang Aum, Chieng Kwang, Kerr 20955, *typus* herb. Br. Mus.).

Ut v. *maliformis* King sed major, tepalis cecidiophoris bicoloribus.

var. **maliformis** (King) Corner comb. nov.—*F. foveolata* Wall. var. *maliformis* King et v. *oleaeformis* King, Ann. R. Bot. Gard. Calc. 1, 2 (1888) 134, pl. 168.

F. pumila Linn. var. **awkeotsang** (Makino) Corner comb. nov.—*F. awkeotsang* Makino, Bot. Mag. Tokyo 18 (1904) 151; Sata, Monogr. (1944) 43, 65, 91.

F. sarmentosa B. Ham. ex J.E. Sm. Rees Cyclop. 14 (1810) n. 45.—*F. cabur* B. Ham. ex J. E. Sm. id. n. 47.—*Pogonotrophe* ? *foveolata* Wall. ex Miq. Hook. Lond. J. Bot. 7 (1848) 77.—*F. foveolata* Wall. ex Miq. Ann. Mus. Bot. Lugd. Bat. 3 (1867) 294.—The types of *F. sarmentosa* and *F. cabur* are preserved in the herbarium of the Linnean Society of London (n. 1610.40, and 1610.41) and are unquestionably this species.

var. **duclouxii** (Lévl. et Vant.) Corner comb. nov.—*F. duclouxii* Lévl. et Vant. Fedde's Rep. 4 (1907) 84.—Yunnan:—Ducloux 106 (*typus*); Henry 9855:; Forrest 11127; Handel-Mazzetti 719; Schneider 408.

var. **henryi** (King) Corner comb. nov.—*F. foveolata* Wall. v. *henryi* King ex D. Oliver, Hook. Ic. Pl. 19 (1889) t. 1824.—*F. arisanensis* Hayata, Ic. Pl. Formos. 8 (1919) 114, f. 38.—*F. foveolata* Wall. v. *arisanensis* (Hayata) Kudo Fl. Formosa (1936) 45; Sata, Monogr. (1944) 43, 90.—Formosa, China (Szechwan and Yunnan to Chekiang).

Formosa:—Wilson 9687, 10124. China:—Carles 639; R. C. Ching 1669, 2674; W. P. Fang 782; Henry 3008, 3552a (type): Hopkingson 379; Maire 601; Meyer 1518; C. Pei 10083; Pratt 139; Schneider 712: C. Silvestri 364–367, 2941, 3468–3471; W. T. Tsang 21419; Y. Tsiang 4902; Wilson 143, 2797.

var. **impressa** (Champ.) Corner comb. nov.—*F. impressa* Champ. ex Benth. Hook. Kew J. Bot. 6 (1854) 76.—*F. foveolata* Wall. v. *impressa* (Champ.) King, Ann. R. Bot. Gard. Calc. 1, 2 (1888) 134.

var. **lacrymans** (Lévl.) Corner comb. nov.—*F. botryoides* Lévl. et Vant. Fedde's Rep. 4 (1907) 83, non Baker.—*F. lacrymans* Lévl. Fl. Kouy-Tcheou (1915) 431.—*F. kwangtungensis* Merr. J. Arn. Arb. 8 (1927) 3.—This is the state with small figs and

small glabrous leaves drying grey-green on both sides and with minutely foveolate, but glabrous, areolae. It has been confused with *F. martini* which is one of several other synonyms of v. *impressa*.

China:—Bodinier 2653 (type, *F. botryoides*); Cavalerie 1142; CCC 12832 (type, *F. kwangtungensis*); H. C. Chow 539, 1333; W. Y. Chun 5986; Esquirol 727, 3573 (type, *F. lacrymans*); Henry 1095, 7843; S. K. Lau 864; T. C. Lee 4583; Maire 327; J. F. Rock 12006; A. N. Steward, C. Y. Chiao, and H. C. Cheo 542, 943; Y. Tsiang 5719, 8526, 12487; W. T. Tsung 23415, 23583; F. T. Wang 22720; Wilson 154; C. T. Wuang 466. Tonkin:—Balansa 4458, Poilane 17221.

var. **luducca** (Roxb.) Corner comb. nov.—*F. luducca* Roxb. Fl. Ind. 3 (1832) 534; Griffith Ic. Pl. As. (1854) t. 561 (2), ut *Ficus sp.*—This is the state with prominent hairy reticulations on the underside of the lamina, short basal nerves, and medium-sized figs. The type is a specimen of Roxburgh's without number in Herb. Martii (Brussels) labelled by Roxburgh "Lod-oo-ee, Deybree, Dosah, 9th May 96 Ficus lodooee R."

f. **sessilis** Corner f. nov.—Receptacula sessilia v. fere, mox glabra, 7–9 mm. lata, setis internis paucis v. copiosis China (Szechuan, Hupeh, Kweichow, Yunnan).

K. L. Chu 3739, 3717; H. C. Chow 1048, 1967; Henry 3122, 3302 (*typus*, herb. Kew), 9171; Faber 448; A. N. Steward, C. Y. Chiao, et H. C. Cheo 584.

var. **nipponica** (Fr. et Sav.) Corner comb. nov.—*F. oxyphylla* Miq. Zoll. Syst. Verz (1854) 93.—*F. nipponica* Fr. et Sav. En. Pl. Jap. 1 (1875) 436.—*F. foveolata* Wall. v. *nipponica* (Fr. et Sav.) King, Ann. R. Bot. Gard. Calc. 1, 2 (1888) 134, p. 167E.

var. **thunbergii** (Maxim.) Corner comb. nov.—*F. thunbergii* Maxim. Bull. Ac. Sc. Petersb. 11 (1883) 339.—*F. foveolata* Wall. v. *thunbergii* (Maxim.) King, Ann. R. Bot. Gard. Calc. 1, 2 (1888) 134, pl. 167G.

ser. Plagiostigmaticae Corner subser. Pogonotropheae (Miq.) Corner

F. laevis Bl. var. **macrocarpa** (Miq.) Corner comb. nov.—*Pogonotrophe macrocarpa* Miq. Hook. Lond. J. Bot. 7 (1848) 74.—*Covellia guttata* Wight, Ic. 6 (1853) 8, t. 1966.—*F. vagans* Roxb. v. *macrocarpa* Miq. Ann. Mus. Bot. Lugd. Bat. 3 (1867) 293.—*F. macrocarpa* Wight ex King, Ann. R. Bot.

Gard. Calc. 1, 2 (1888) 166, t. 208.—*F. guttata* (Wight) King, id. 166, t. 209.—Because of the cauliflorous habit King referred these plants to sect. *Neomorphe,* but they are root-climbers with leaves exactly as in *F. laevis,* from which they differ merely in the cauliflorous figs.

ser. Ramentaceae Corner subser. Pantonianae Corner

F. pantoniana King var. **colobocarpa** Diels ex Corner v. nov.—Ramuli, stipulae, petioli, et costae (subtus) pilis brunneis appressis –1 mm. longi vestiti. Receptacula 10 mm. lata, pubescentia dein glabra, apice late subtruncato, ostiolo depresso: pedunculo 1 mm. longo: bracteis basalibus appresse pilosis, caducis: pedicello 2–3.5 mm. longo: setis internis numerosis. Terr. New Guinea (Morobe, Clemens 2124, *typus* herb. Berlin, det F. colobocarpa Diels ms.).

var. **rhytidophloea** Corner v. nov.—Ramuli, petioli, et costa media (subtus) pilis brunneis appressis 1–2 mm. longis vestiti, glabrescentes. Stipulae glabrae. Lamina 2–6.5 × 1.5–3.5 cm., ovato-elliptica, obtusa v. subacuta, basi rotundata, tenuiter coriacea: costis lateralibus utrinsecus 4–7, intercostis 1–2, subtus vix elevatis: costis basalibus utrinsecus 1, ad $\frac{1}{4}$–$\frac{1}{3}$ laminae elongatis: petiolo 6–13 mm. longo. Receptacula axillaria et ad ramulos defoliatos, glabra, haud brunneo-furfuracea, maturitate rubra: pedunculo 1–1.5 mm. longo: bracteis basalibus 2 mm. longis, ovatis, acutis, glabris, persistentibus: pedicello 0–3 mm. longo: corpore receptaculi 14–17 mm. lato (21–24 mm., vivo), subgloboso, valde rugoso-tuberculato, ostiolo plano bracteis apicalibus parvis nonnullis occluso: setis internis nullis: pariete 3–4 mm. crasso: cellulis scleroticis copiosis. Papua, 1,300–2,000 m. alt.

Forsan species nova sed v. *colobocarpa* plus minus intermedia. Brass 23339 (Milne Bay District, Mt. Dayman, *typus,* Grey herb. Harvard); Carr 13616 (Alola).

F. amblisyce Corner sp. nov.—Scandens, foliis distichis. Ramuli, stipulae, petioli, et costae (subtus) pilis pallidis rigidis appressis 1–2 mm. longi sparsim vestiti, glabrescentes. Ramuli 1.5–2 mm. crassi, brunnei. Stipulae 14 mm. longae. Lamina 5–9 × 2.2–4 cm., ovata v. elliptica, breviter acuminata, basi leviter cordata v. rotundata, subcoriacea: costis lateralibus utrinsecus 5–6 (–7), intercostis –5, subtus valde elevatis, supra haud v. vix impressis, areolis planis: costis basalibus utrinsecus 1–2, ad $\frac{1}{3}$ laminae elongatis, glandulis basalibus 2: petiolo 7–22 mm. Receptacula

axillaria binata sessilia v. pedunculo puberulo –0.5 mm. longo praedita, 7–9 mm. lata, obtuse subconoidea, glabra, ostiolo minuto depresso: bracteis basalibus 3, 2–2.5 mm. longis, sparsim appresse pilosis, ovatis, subacutis, caducis: setis internis nullis: cellulis scleroticis copiosis. Flores ut in *F. pantoniana.* Cystolitha amphigena. New Guinea, in silvis c. 900 m. alt. (van Royen 3775, *typus* herb. Leiden).

F. sagittatae v. *adhaerenti* similis sed cellulis scleroticis copiosis in pariete ut in *F. pantoniana.*

ser. Ramentaceae Corner subser. Balanotae Corner

F. devestiens Corner sp. nov.—Scandens. Ramuli, petioli, stipulae, costae (subtus), et receptacula pilis brunneis 1–2 (–4) mm. longis rectis patentibus hispidi v. strigosi: nervuli subtus sparsim pilosi. Ramuli 2–3 mm. crassi, brunnei. Stipulae –15 mm. longae. Lamina 4–17 × 2–6 cm., ovato-elliptica, ad apicem subacuminatum attenuata, basi subcordata rotundata v. late cuneata, membranacea v. subcoriacea fragilisque, laevis, supra glabra: costis lateralibus utrinsecus 6–9, intercostis –7, supra leviter impressis et subtus leviter elevatis, areolis planis: costis basalibus utrinsecus 2–3, ad $\frac{1}{3}$ laminae elongatis, glandulis basalibus 2: petiolo 8–17 mm. Receptacula axillaria binata v. complures fasciculata, sessilia, 6–8 mm. lata (? matura), subglobosa v. subconica, dense villosa, ostiolo plano bracteis apicalibus parvis 3 occluso: bracteis basalibus in membrana tridentata 4–6 mm. longa connatis, uno latere fissa, caduca, sparsim pilosa: setis internis sparsis v. nullis: cellulis scleroticis ?. Flores ut in *F. sagittata.* Cystolitha amphigena. Amboina, Ternate.

Bracteis basalibus connatis, receptaculi ostiolo non depresso distincta, *F. balanotae* affinis.

Amboina:—C. B. Robinson 1677 (*typus* herb. Leiden; det. *F. villosa*). Ternate:—Beguin 1302 (det. *F. recurva*).

F. ceanothifolia Corner sp. nov.—Scandens. Ramuli, petioli, stipulae, et costae (subtus) pilis 1–3 mm. longis fulvo-brunneis rectis patentibus hirsuti: nervuli subtus pilis albidis, saepe flexuosis, sparsim pubescentes. Ramuli 1.5–2 mm. crassi, brunnei, glabrescentes. Stipulae –7 mm. longae. Lamina 1–2.7 × 0.7–1.7 cm., elliptica v. ovata, acuta v. subacuta, basi rotundata v. cuneata, rigide coriacea bullata, apici marginibusque recurvatis, supra subscabrida subtus hirsuta: costis lateralibus utrinsecus 3–4, intercostis –5, supra valde impressis, subtus valde

elevatis: costis basalibus utrinsecus 1–2, ad $\frac{1}{3}$–$\frac{1}{2}$ laminae elongatis: petiolo 2–5 mm. longo. Receptacula axillaria solitaria sessilia, 3.5–5 mm. lata, subglobosa, pilis fulvidulis appressis sparsim vestita, ostiolo plano bracteis apicalibus 3 planis v. convexis occluso: bracteis basalibus 3, 1.5–3 mm. longis, ovatis acutis, ad mediam pilosis, persistentibus: setis internis nullis: cellulis scleroticis in rec. fem. copiosis. Flores feminei sessiles v. breviter stipitati. Semina anguste carinata. Cystolitha amphigena. New Guinea (Wissel Lake region, c. 1,700 m. alt., Eyma 5080, *typus* herb. Leiden).

Forsan *F. sageretinae* Diels forma alticola sed hirsutior, lamina minor, bracteae basales haud caducae, bracteae apicales haud prominentes, costae laterales paucae.

F. oxymitroides Corner sp. nov.—Scandens. Ramuli, stipulae, et petioli pilis albis –0.5 mm. longis sparsim puberuli; nodi pilis paucis 2–3 mm. longis appressis rigidis praediti. Ramuli 1.5–2 mm. crassi, fusco-brunneae, compressi. Stipulae –12 mm. longae, appresse puberulae, caducae. Lamina 8–14 × 3.5–5 cm., ovato-elliptica, ad apicem 10–20 mm. longum acuminata, basi late cuneata v. subrotunda, membranacea dein subcoriacea, laevis, glabra, integra: costis lateralibus utrinsecus 5–6 (–7), subtus elevatis, intercostis –6, vix elevatis, supra haud impressis, nervis reticulatis planis, minute brunneo-areolatis: costis basalibus utrinsecus 1–2, ad $\frac{1}{3}$ laminae elongatis: petiolo 8–15 mm. Receptacula ad ramulos efoliatos, puberula dein glabra, coccinea; pedunculo 4–5 mm.: bracteis basalibus caducis (non visis): pedicello 5–6 mm., gracili: corpore receptaculi 10 × 9 mm., elliptico, bracteis apicalibus conspicuis –1.5 mm. projicientibus: setis internis nullis: pariete tenui, cellulis scleroticis copiosis. Flores feminei sessiles v. breviter pedicellati: tepalis 4, liberis rubris. Semina 1.5–1.7 mm. longa, anguste carinata. Cystolitha amphigena. New Guinea (T.N.G., Eastern Highlands, Kini, Mt. Michael, ad rupes; NGF 11418, typus in herb. Brisbane).

Lamina ut in *F. sagittata* et vix distincta, sed bracteae apicales conspicuae ut in subser. Balanotae.

ser. Ramentaceae Corner subser. Irritantes Corner

F. odoardi King var. **glabrata** Corner v. nov.—*F. cinnabarina* S. Moore, J. Bot. 61 (1923) suppl. 50.—Praeter receptacula stipulasque glabra v. pilis paucis ad nodos. New Guinea.—Forbes 171 (typus *F. cinnabriana*); Brass 7214, 7463, 8098; Carr 12523 (Koitaki, *typus* v. *glabrata,* herb. Br. Mus.); Kanehira 1837.

F. sphaerocarpa Corner sp. nov.—Scandens. Ramuli, petioli, costae (subtus), et receptacula pilis brunneis erectis irritantibus –1.5 mm. longis strigosi: nervuli subtus pilis albidis, saepe flexuosis, breviter villosi. Ramuli 3–4 mm. crassi. Stipulae appresse pilosae, caducae. Lamina 7–15 × 4.5–6.5 cm., ovata v. elliptica, breviter acuminata, basi rotundata v. subcordata, coriacea fragilis, sicco brunnea: costis lateralibus utrinsecus 4–6, intercostis strictis –9, supra valdiuscule impressis, subtus valde elevatis, areolis planis: costis basalibus utrinsecus 2, ad $\frac{1}{3}$–$\frac{1}{2}$ laminae elongatis: petiolo 12–20 mm. Receptacula axillaria, pilis irritantibus brunneis strigoso-villosa, praeter ostiolum glabrescentia, maturitate rubra: pedunculo 2–6 mm. longo: pedicello 0–5 mm.: bracteis basalibus 3–6 × 4–9 mm., ovato-acutis, appresse pilosis: corpore receptaculi 30–35 mm. lato (40–45 mm., vivo) subgloboso, ostiolo in tubulo piloso 5–7 mm. longo depresso, bracteis apicalibus immersis occluso: setis internis 1–2 mm. longis, flavidulis, rigidis, copiosis: cellulis scleroticis in pariete 5–7 mm. crasso copiosis. Flores ut in *F. odoardi*. Cystolitha amphigena. Papua (Boridi, 1,600 m. alt., Carr 13553, *typus* herb. Singapore).

F. odoardi affinis sed setis internis copiosis, foliis rigide coriaceis, venis supra impressis differt. Quam *F. irritanti* Summerh. et *F. insculpta* Summerh. receptacula multo majora.

ser. Ramentaceae Corner subser. Ramentaceae

F. baeuerleni King var. **vulcaniformis** Corner v. nov.—Tenuiuscule villosa v. appresse pilosa, pilis –1.5 mm. longis. Lamina 8–16 × 3.5–6 cm., anguste elliptica v. lanceolata. Receptacula brunneo-villosula, pilis –0.5 mm. longis: pedunculo 2–5 mm. longo: pedicello 2–7 mm.: corpore receptaculi 13–20 mm. lato, apice conico vulcaniformi, ostiolo ad basim tubuli glabri 4–6 mm. alti bracteis apicalibus parvis occluso: setis internis brevibus, albidis, copiosis: cellulis scleroticis in pariete tenui nullis. Terr. New Guinea, New Britain, Solomon Isl.

Primo species nova videtur sed specimina v. *baeuerleni* nonnulla plus minus intermedia.

Hoogland 4178 (T.N.G., Northern District, Tufi subdistr,); NGF 3458 (New Britain, Keravat, *typus* herb. Lae); Brass 3458 (Solomon Isl., Ysabel, Sigana); Kajewski 2618 (Solomon Isl., Guadalcanal, Tutuve Mt.).

F. sagittata Vahl, En. 2 (1806) 185.—*F. compressicaulis* Bl. Bijdr. (1825) 439.—*F. ramentacea* Roxb. Fl. Ind. 3 (1832) 547.—This species has been generally known as *F. ramentacea*

Roxb., but the name is antedated by *F. sagittata* Vahl and *F. compressicaulis* Bl. The type of *F. sagittata* is a sterile bathyphyll-shoot, identical with the bathyphylls of *F. ramentacea;* the glabrescent, non-bullate lamina with shallowly cordate base shows that it is not *F. villosa.* There is no specimen of *F. compressicaulis* Bl. at Leiden, but there is a sterile specimen, so named, in the herbarium of R. Schomburgk (Adelaide Botanic Garden) which agrees exactly with Blume's description and is *F. ramentacea;* it has the characteristically compressed internodes described by Blume, which occur in the young shoots of this and related species. I have referred *F. microcarpa* Bl., which is *F. leptocarpa* Steud., to *F. recurva* Bl. because there is no specimen of Blume's labelled *F. microcarpa* at Leiden, but Reinwardt 1030 (Java) is labelled *F. microcarpa* Bl. by Reinwardt. Miquel, however, consistently interpreted *F. leptocarpa* Steud. as *F. ramentacea,* that is *F. sagittata.*

var. **adhaerens** (Miq.) Corner comb. nov.—*F. adhaerens* Miq. Pl. Jungh. (1851) 55.—*F. leptocarpa* Steud. v. *adhaerens* Miq. Ann. Mus. Bot. Lugd. Bat. 3 (1867) 280.—This is distinguished by the more or less sessile fig and the white latex (yellow in the large, stout v. *sagittata*).

var. **minor** Corner v. nov.—*F. tayabensis* Elmer Leafl. Philip. Bot. 1 (1907) 255.—*F. rubrocarpa* Elmer, Leafl. Philip. Bot. 9 (1937) 3476.—Planta minus robusta, internodis brevioribus, lamina minori, latice albido. Ramuli 2–3 mm. crassi: internodis ramulorum fertilium 12–20 mm. longis. Lamina 6–14 × 3–7 cm. Receptacula 10 mm. lata, pedunculo 0–1 mm. longo, pedicello 1–5 mm. Malaya, Sumatra, Java, Borneo, Philippine Isl.

Malaya:—King's coll. 5252, 6421. Sumatra:—Forbes 1538; Iboet 238; Lorzing 5177, 9306. Java:—Backer 30100; Forbes 1140, 1387; Horsfield 930; Koorders 27071, 28007; Hort. Bot. Bog. XV B 74 (*typus,* herb. Bogor) et 79. Borneo:—Endert 1883; Elmer 21775. Philippines:—Elmer 8266, 13045, 14523, 16420.

var. **oligosperma** (Miq.) Corner comb. nov.—*F. oligosperma* Miq. Pl. Jungh. (1851) 55.—*F. leptocarpa* Steud. v. *oligosperma* Miq. Ann. Mus. Bot. Lugd. Bat. 3 (1867) 280.—This differs from v. *minor* in the practically sessile, thinly hairy fig.

F. villosa Bl. var. **appressa** Corner v. nov.—Petioli et costa media (subtus) pilis appressis 1–2 mm. longis praediti. North Borneo. Clemens (Kinabalu) 26600, 40413, 40745; Elmer 21034 (Tawao, *typus* herb. Br. Mus.); For. Bur. B.N.B. 2857 (Bettotan).

var. **subglobosa** Corner v. nov.—Miq. Fl. Ind. Bat. 1, 2 (1859) 317, t. 21B.—Ut v. *villosa* sed corpus receptaculi 6–8 mm. latum subglobosum, haud umbonatum: pedunculo –1 mm. longo: pedicello 1.5–3 mm. longo. Lamina ovato-lanceolata v. subisosceles, basi late subtruncata. Thailand, Penang, North Borneo, Mentawei Isl.

Thailand:—Kerr 578 (Kao Saming, Krat), 15552 (Kao Luang, N. Sritamarat). Penang:—Curtis 173 (*typus,* herb. Singapore). Mentawei:—Boden-Kloss 10593 (Siberut); Iboet 526 (Sipora); Ridley 14797 (Sipora). Borneo:—Clemens 28426, 28726A (Kinabalu; 28726 = *Urophyllum,* 28726B = *Pandanus;* ? cum 28426 commixta).

var. **tonsa** Corner v. nov.—Receptacula sparsim appresse puberula, dein glabra, primo minute rubigino-furfuracea: pedunculo 0.5–2 mm. longo: pedicello 0–1 mm. longo: corpore receptaculi 5–7 × 6–8 mm., depresso-globoso, subtruncato, haud umbonato: setis internis paucis: cellulis scleroticis nullis. Malaya (Cameron Highlands, Pahang, 1,300 m. alt., Sing. F.n. 32858, *typus* herb. Singapore).

Lamina ut in *F. villosa,* receptacula ut in *F. urnigera* Miq. sed cellulis scleroticis deficientibus.

F. spiralis Corner sp. nov.—Scandens, ad truncos arborum circumvolvens, foliis distichis, alternis 4–7 nodis foliatis et 5–20 nodis efoliatis stipulatis, apice foliato v. modo stipulato spiciformi: ramuli fertiles pendentes, similiter instructi: bathyphylla nulla. Ramuli, petioli, costa media (subtus), et receptacula pilis brunneolis plus minus erectis dense strigosi, ad ramulos 1–2 mm. longis, ad petiolum et costam 2–4 mm.: costae laterales pilis brevioribus sparsis, intercostae scabrido-puberulae. Ramuli 5 mm. crassi. Stipulae 12–30 mm. longae, late lanceolatae, appresse puberulae, persistentes. Lamina 28–42 × 8–14 cm., plus minus anguste elliptica v. obovata, ad apicem acuminatum gracilem 15–25 mm. longum attenuata, ad basim subtruncatum attenuata, rigide chartacea, subtus subscabrida: costis lateralibus utrinsecus 12–14, curvatis, vix inarcuatis, subtus valde elevatis, supra leviter impressis, intercostis strictis 7–13 subtus elevatis, areolis planis: costis basalibus 2 (–3), brevibus, glandulis basalibus 2: petiolo 10–20 mm. longo, 3–5 mm. crasso. Receptacula subsessilia 2–6 fasciculata, axillaria: pedunculo 0.5–1 mm. longo: bracteis basalibus 1–1.5 mm. longis, lanceolatis, acutis, appresse puberulis, persistentibus: pedicello nullo: corpore receptaculi 6–7 mm. lato, depresso-globoso, pilis brunneolis 1–2

mm. longis dense strigoso, ostiolo minuto depresso: setis internis nullis: cellulis scleroticis nullis. Flores ut in *F. sagittata*. Cystolitha amphigena. Sarawak.

Species habitu in genere singularis. Plantas steriles prope Kuching nonullae vidi.

Purseglove 4642 (Sematan, Kg. Pueh, *typus,* herb. Cambridge); Corner s.n. (Bt. Kuap. pr. Kuching, Jan. 1959).

F. recurva Bl. var. **bridelioides** Corner v. nov.—Sparsim pilosa v. subglabra. Lamina 3–8 × 1.5–6 cm., ovata, ovato-lanceolata, v. obovata, obtusa v. subacuta, ut in v. *ribesioides* (Wall.) King: costis lateralibus 3–4 (–5), supra haud impressis. Receptacula 6–8 mm. lata, pedicellis longioribus 2–8 mm. Thailand, Malaya, Sumatra, Borneo.

Thailand:—Kerr 15870 (Songkla). Kedah:—Vesterdal s.n. Trengganu:—Sing. F.n. 25941 (*typus,* herb. Singapore). Perak:—King's coll. 4575, 5490, 10193; Wray 693, 2890. Johore:—H. M. Burkill 1806: Teruya 448. Sumatra:—Bartlett 7221, 7324, 8788 (Asahan). Borneo:—Beccari 837, 1361 (Sarawak).

var. **elegantior** Corner v. nov.—Pilosa ut v. *ribesioides* (Wall.) King. Lamina 7–16 × 2–5.5 cm., anguste oblonga, subacuminata, basi rotundato-subcordata v. cuneata: costis lateralibus 5–6 (–7), obliquis, supra haud v. vix impressis, intercostis numerosis 3–12. Receptacula 4–6 mm. lata; pedunculo nullo: pedicello 3–5 mm. longo. Malaya, Bangka, Borneo.

F. uncinulatae Corner similis.

Sing. F.n. 30126 (Trengganu, *typus* herb. Singapore); Verhoef 100 (Borneo, Pulau Laut); Bunnemeyer 1504 (Bangka); Teysmann 6859 (Bangka).

var. **lasiocarpa** Corner v. nov.—Ramuli, petioli, stipulae, laminae pagina inferior, et receptacula pilis fulvis erectis 1–3 mm. longis lanuginosi: costae et nervuli subtus pilis brevibus uncinatis intermixtis. Receptacula pilis uncinatis deficientibus, 7–9 mm. lata: pedunculo 0–1 mm. longo: bracteis basalibus 2–3 mm. longis: pedicello 0–1.5 mm.: setis internis paucis. Borneo (Kinabalu) 1,000–1,600 m. alt.

F. villosae Bl. v. *appressae* similis, sed nervi pilis brevibus uncinatis praediti ut in *F. recurva.*

Sing. F.n. 26681 (*typus,* herb. Singapore), 27816; Clemens 30271.

var. **pedicellata** Corner v. nov.—Ut v. *recurva* sed receptacula pilis uncinatis –0.5 mm. longis hispidula, pedicellis gracilibus 2.5–4 mm. longis. Borneo (W. Koetai, Endert 3296, *typus* herb. Leiden).

F. uncinulatae Corner approximans sed ramuli et petioli pilis longis rectis ut in *F. recurva.*

F. uncinulata Corner sp. nov.—Scandens gracilis. Ramuli, folia, et receptacula pilis brevibus 0.5–1 mm. longis uncinatis vestiti, pilis rectis deficientibus. Ramuli 2–2.5 mm. crassi, brunnei. Stipulae –10 mm. longae, puberulae. Lamina 7–21 × 3.2–9 cm., anguste ovato-elliptica, elliptica, v. lanceolata, acuta v. subacuminata, basi anguste subcordata v. rotundato-cuneata, tenue subcoriacea, supra glabra, subtus tenue villosa: costis lateralibus utrinsecus 4–5 (–6) obliquis, supra haud impressis, subtus elevatis, intercostis –5 subtus distincte elevatis: costis basalibus utrinsecus 2–3, ad $\frac{1}{2}$–$\frac{2}{3}$ laminae elongatis: petiolo 7–15 mm. Receptacula axillaria binata et ad ramulos defoliatos fasciculata, pilis uncinulatis villosa: pedunculo 0–2.5 mm. longo: bracteis basalibus 1–2 mm. longis, ovato-acutis, caducis: pedicello 2–9 mm.: corpore receptaculi 7–9 mm. lato, subgloboso, umbonato, ostiolo alte depresso: setis internis minutis sparsis: cellulis scleroticis nullis. Flores ut in *F. recurva.* Cystolitha amphigena. East Johore, Natuna Isl., Sarawak, North Borneo.

F. recurvae Bl. v. *elegantioris* Corner affinis.

Johore:—Sing. F.n. 30699, 32007, Sedili River. Natuna Isl.:—v. Steenis 1156 (G. Ranai, *typus,* herb. Leiden). Sarawak:—Beccari 773, 814; Haviland 3108 (Kuching); P. W. Richards 2544 (Mt. Dulit). Brit. North Borneo:—Clemens (Kinabalu) 31220, 31230, 31574, 32055, 32157; Elmer 20683 (Tawao); Sing. F.n. 19070 (Bettotan). Central East Borneo:—Endert 3137 (W. Koetai).

F. pendens Corner sp. nov.—Scandens gracilis, ramis fertilibus longis pendentibus. Ramuli, folia, et receptacula pilis aureo-brunneis rectis rigidis 1–2 mm. longis dense villosi, pilis uncinulatis deficientibus. Ramuli 2–3 mm. crassi. Stipulae –12 mm. longae. Lamina 4.5–15 × 1.8–7 cm., anguste ovato-elliptica v. lanceolato-elliptica, ad apicem subacuminatum attenuata, basi subcordata v. late cuneata, rigidiuscule coriacea, subtus villosa, supra mox glabra: costis lateralibus utrinsecus 3–6 (–7), obliquis, supra haud v. vix impressis, subtus valde elevatis, intercostis 3–8 subtus elevatis: costis basalibus utrinsecus 1–2, ad $\frac{1}{2}$ laminae elongatis, glandulis basalibus 2 parvis:

petiolo 2–15 mm. Receptacula axillaria 2–7 fasciculata, sessilia v. subsessilia, pilis albidis v. brunneis dense villosa: pedunculo 0–0.5 mm. longo: bracteis basalibus 1.5–2.5 mm. longis, ovatis, subacutis, caducis: pedicello 0–1 mm. longo: corpore receptaculi 5–6 mm. lato (pilis exclusis), subgloboso v. subconico, ostiolo alte depresso: setis internis numerosis: cellulis scleroticis nullis. Flores ut in *F. recurva*. Cystolitha amphigena.

v. **pendens.**—Malaya, Sumatra, Sarawak, North Borneo, in silvis –1,300 m. alt.

F. recurvae affinis sed indumento, receptaculo subsessili, et forsan habitu, differt.

Penang:—Curtis 1560, West Hill. Perak:—Sing. F.n. 38630, Maxwell's Hill. Pahang:—Sing. F.n. 11486, Purseglove 4168 (*typus* herb. Singapore), Fraser's Hill. Johore:—Sing. F.n. 29214, G. Panti. Sumatra:—Lorzing 6395 (Bandabaroe); Jacob 347, Maradjo 50, Meijer 3988 (Pajakumboe). Borneo:—Clemens (Kinabalu) 11171 (?11174), 26837, 27498; Sing. F.n. 27335, 27379 (Kinabalu); Corner s.n. (Kuching, Jan. 1959).

var. **appressa** Corner v. nov.—Pilis appressis. Borneo (E. Koetai, Sg. Susuk, Kostermans 5473, *typus* herb. Leiden).

ser. Ramentaceae Corner subser. Excavatae Corner

F. lanata Bl. var. **foveolata** Corner v. nov.—Lamina subtus areolis foveolatis. Receptacula saepe glabra. North Borneo (Kinabalu), 1,000–1,600 m. alt.

Clemens 26337, 28525, 29169, 31603 (*typus* herb. Leiden), 35110, 40723.

F. supperforata Corner sp. nov.—Scandens. Stipulae et ramuli pilis 2–3 mm. longis erectis v. appressis vestiti, ramuli mox glabri sed minute brunneo-velutinati: petioli et costae (subtus) pilis appressis –1.5 mm. longis sparsis, petioli etiam minute brunneo-velutinati. Ramuli 2–3 mm. crassi. Lamina 9–18 × 4–8 cm., elliptica, attenuato-acuminata, basi rotundato-cuneata v. anguste subcordata, rigidiuscule coriacea, sicco brunnea: costis lateralibus utrinsecus 5–7, supra vix impressis, subtus elevatis, intercostis –12 vix elevatis, areolis subtus minute puberulo-foveolatis: costis basalibus utrinsecus 2–3, ad $\frac{1}{3}$–$\frac{1}{2}$ laminae elongatis, glandulis basalibus nullis: petiolo 12–30 mm. longo. Receptacula axillaria et ad ramulos defoliatos 2–6 fasciculata, minute brunneo-velutinata ut ramuli, glabrescentia: pedunculo 0. bracteis basalibus 1 mm. longis, ovatis, obtusis,

persistentibus: pedicello 4–6 mm.: corpore receptaculi 7–9 mm. lato, subgloboso, saepe subtruncato, ostiolo haud v. vix depresso: setis internis paucis: cellulis scleroticis nullis. Flores ut in *F. recurva*. Cystolitha hypogena. Sarawak, West Borneo.

F. lanatae Bl. affinis sed indumento nervis nervulisque differt.

Anderson 9061 (Sarawak, Binatang); Beccari 3573 (Kuching); Mondi 29 (Pontianak, *typus*, herb. Leiden).

F. callicarpides Corner sp. nov.—Scandens gracilis, humilis. Ramuli et petioli pilis brunneis erectis subflexuosis brevibus puberuli, mox glabri, pilis uncinulatis microscopicis paucis: lamina glabra. Ramuli 1–1.5 mm. crassi. Stipulae –3 mm. longae, glabrae. Lamina 1.2–3.5 × 0.4–2 cm., elliptica v. obovata, asymmetrica, obtusa v. subacuta, basi asymmetrica uno latere anguste cuneata altero subcordata, coriacea: costis lateralibus utrinsecus 3–4, supra haud impressis, subtus planis latis, intercostis nullis, areolis haud foveolatis brunneis: costis basalibus utrinsecus 1, ad $\frac{1}{3}$–$\frac{1}{2}$ laminae elongatis: petiolo 2–4 mm. longo. Receptacula axillaria binata puberula glabrescentia, maturitate rubra: pedunculo 1–1.5 mm. longo: bracteis basalibus 0.5–1 mm. longis, subacutis, persistentibus: pedicello 0–0.5 mm. longo: corpore receptaculi 5–6 mm. lato, depresso-globoso, ostiolo paulo depresso, bracteis apicalibus 3 planis occluso: setis internis et cellulis scleroticis nullis. Flores ut in *F. recurva*. Cystolitha hypogena. Sarawak, in silvis paludosis.

Species bathyphylloidea, *F. excavatae* Wall. affinis sed areolis nunquam foveolatis.

Anderson 8539 (Betong), 9805 (Sianggang), 9890 (Miri, *typus* herb. Kuching); For. Dept. Sarawak 2120 (Baram, S. Dua).

ser. Distichoideae Corner

F. distichoidea Diels var. **megacarpa** Corner v. nov.—Receptacula 14–16 mm. lata, pariete –2 mm. crasso: pedunculo 3–5 mm. longo: bracteis basalibus caducis. Flores masculi 3–6 mm. longi, tepalis gamophyllis. Papua (Isuarava, Carr 16031, *typus* herb. Singapore).

F. phatnophylla Diels var. **glochidioides** Corner v. nov.—Lamina 6–13 × 3.2–6 cm., elliptica, breviter acuminata, tenue coriacea: intercostis 1–3: costis basalibus ad $\frac{1}{4}$–$\frac{1}{3}$ laminae elongatis: petiolo 8–16 mm. Receptacula sessilia, bracteis basalibus caducis. New Guinea (Rouffaer River, Docters v. Leeuwen 9027, 10166, *typus* herb. Leiden).

var. **meiocarpa** (Diels) Corner comb. nov.—*F. meiocarpa* Diels, Engl. Bot. Jahrb. 67 (1935) 221.

F. calodictya Summerh. var. **gamophylla** Corner v. nov.—Perianthium femineum gamophyllum, breviter 2–4 lobatum. Receptacula 7–8 mm. lata: pedunculo 2–4 mm. longo. New Guinea (Docters v. Leeuwen 9641, Albatross Biv., *typus* herb. Leiden: Meyer Drees 491, Bernhard Biv.).

F. agapetoides Diels var. **solomonensis** Corner v. nov.—Receptacula minora, 5–6 mm. lata: pedunculo longiori, 1–3 mm. Lamina 3–7 × 1.7–3.8 cm., majora, elliptica v. ellipticoobovata, basi cuneata: costis lateralibus utrinsecus 4–6. Stomata alte immersa. Solomon Isl.

Bougainville:—Kajewski 1946 (Buin, *typus* herb. Kew); J. H. L. Waterhouse 95, B 201, 749. Guadalcanal:—Kajewski 2654 (Mt. Tutuve).

ser. Distichae Corner

F. hederacea Roxb. Fl. Ind. 3 (1832) 538; Wight, Ic. t. 653.—*F. scandens* Roxb. id. 536, non Lam.—*F. fruticosa* Roxb. id. 533; Wight, Ic. t. 654.—There can be no doubt from the descriptions and Wight's figures that these are conspecific. *F. fruticosa* is represented by Wallich 4501, but I have found no specimens of Roxburgh's. Accordingly I choose the better name, *F. hederacea,* for this well-known climber, *F. scandens* being a later homonym. There are four ms. names for the species, which are of interest to students of older specimens, namely 'F. crustacea' (B. Hamilton 2434), 'F. sarmentosa' (B. Hamilton 2435; non J. E. Sm.), 'F. triplinervis' (B. Hamilton 2412), all of which are at Edinburgh, and 'F. ?ludens' (Wallich 4579, bathyphylls).

F. detonsa Corner sp. nov.—Glabra, novellis primo albidopuberulis. Folia ? spiraliter disposita. Stipulae 5–12 mm. longi, subcaducae. Lamina 4–11 × 2.2–6 cm., ovata v. elliptica, obtusa, subacuta v. subacuminata, basi late cuneata, crassiuscule coriacea: costis lateralibus utrinsecus 4–8, angulo lato (70–80°) exeuntibus, supra tenuiter impressis, subtus elevatis, intercostis 0–1 vix elevatis: costis basalibus utrinsecus 1, brevibus, glandulis basalibus nullis: petiolo 8–30 × 1.5–2 mm. Receptacula axillaria binata, maturitate rubra: pedunculo 2–3 × 2 mm.: bracteis basalibus 1.5 mm. longis, obtusis, subcaducis: corpore receptaculi 8–10 × 7–9 mm., subgloboso, ostiolo haud depresso. Flores ut in *F. disticha* Bl. Cystolitha hypogena. North Borneo, 1,600–2,200 m. alt.

F. distichae Bl. persimilis sed robustior foliis majoribus, ut videtur spiraliter dispositis, costis pluribus valde divergentibus, receptaculis majoribus differt.

Kinabalu:—Clemens 31443, 33456 (*typus,* herb. Br. Mus.), 33832; Sing. F.n. 27512. West Koetai, Mt. Kemoel.:—Endert 4449.

ser. Trichocarpeae Corner

F. trichocarpa Bl. Bijdr. (1825) 458.—*F. filiformis* Bl. id. 442.—*F. obtusa* Hassk. v. *gedehensis* Koord. et Val. Bijdr. Booms. Java 11 (1906) 227.—Two sheets of Blume's at Leiden are named *F. filiformis,* which show it to be the bathyphyllous stage of the common species known as *F. obtusa* Hassk. There appears to be no specimen of *F. trichocarpa,* but Blume's description obviously refers to the acrophyllous fertile state. I was, indeed, puzzled why Blume should have apparently omitted this species until I read the description of *F. trichocarpa.* Two states occur in Java, one with smaller figs, which I identify with *F. trichocarpa* (fructibus pisiformibus), and the other with larger figs which is *F. obtusa* Hassk. and var. *genuina* Koord. et Val., and must become var. *obtusa.*

var. **borneensis** (Miq.) Corner comb. nov.—*F. piperifolia* Miq. var. *borneensis* Miq. Ann. Mus. Bot. Lugd. Bat. 3 (1867) 293.—*Pogonotrophe borneensis* Miq. Fl. Ind. Bat. I, 2 (1859) 330.—Ramuli et petioli pilis brunneis sparsis villosi, mox glabri: costae subtus sparsim appresse pilosae. Receptacula 7–10 mm. lata, mox glabra: pedunculo 0–6 mm. longo. Borneo.

Inter v. *trichocarpam* et v. *piperifoliam.*

Korthals s.n. (Banjermasim, *typus* herb. Leiden); Kostermans 5981 (E. Koetai); San. 16651 (Sipitang).

var. **obtusa** (Hassk.) Corner comb. nov.—*F. obtusa* Hassk. Cat. Hort. Bog. (1844) 75.—*F. obtusa* Hassk. v. *genuina* Koord. et Val. Bijdr. Booms. Java 11 (1906) 224.

var. **piperifolia** (Miq.) Corner comb. nov.—*F. obtusa* Hassk. v. *piperifolia* (Miq.) Koord. et Val. Bijdr. Booms. Java 11 (1906) 227.—*Pogonotrophe piperifolia* Miq. Zoll. Syst. Verz. (1854) 93, 99.—*F. piperifolia* Miq. Ann. Mus. Bot. Lugd. Bat. 3 (1867) 293.

F. nasuta Summerh. var. **glabrata** Corner v. nov.—Praeter stipulas bracteasque basales glabra. Setae internae nullae. New Guinea. Clemens 1170 (Morobe, *typus* herb. Leiden); Carr 14321, 14462, 14469 (Boridi).

F. phaeobullata Corner sp. nov.—Alte scandens. Ramuli, stipulae, petioli, costae (subtus), et receptacula juvenilia pilis fuscis rigidis erectis –1 (–1.5) mm. longis villosi, praeter costas mox glabri. Ramuli 3 mm. crassi, fusco-brunnei rugosi. Lamina 6–10 × 3–6 cm., ovato-elliptica, acute subacuminata, basi rotundato-cordata v. late cuneata, integra, coriaceo-bullata: costis lateralibus utrinsecus 3–5, subtus elevatis, intercostis –4: costis basalibus utrinsecus 2, ad $\frac{1}{2}$–$\frac{2}{3}$ laminae elongatis, glandulis basalibus 2 parvis: petiolo –20 mm. longo. Receptacula axillaria, praeter bracteas basales mox glabra: pedunculo 5–9 mm.: bracteis basalibus 1 mm. longis, obtusis, appresse pilosis: pedicello 2–3 mm. longo: corpore receptaculi 10–12 mm. (15–17 mm., vivo), subgloboso, ostiolo mox depresso: setis internis paucis parvis brunneolis: cellulis scleroticis nullis sed cellulis parietis omnibus plus minus crasse tunicatis. Flores ut in *F. hypophaea*. Cystolitha hypogena. Papua (Carr 12474, Rouna, *typus* herb. Br. Mus.).

F. hypophaeae Schl. affinis sed pilis flexuosis lanuginosis deficientibus, receptaculis minoribus differt.

F. semilanata Corner sp. nov.—Scandens gracilis, foliis laxe spiraliter dispositis. Ramuli et petioli pilis brunneis appressis rectis et pilis minutis flexuosis villosi: nervuli pilis brevioribus, glabrescentes. Ramuli 2–2.5 mm. crassi, compressi, brunnei. Stipulae – 7 mm. longae, appresse brunneo-sericeae v. substrigosae. Lamina 4–8.5 × 2–3.7 cm., ovato-elliptica, subacuminata v. longiuscule acuminata, basi rotundata, integra, tenue coriacea, laevis: costis lateralibus utrinsecus 4–5, subtus leviter elevatis, intercostis –4: costis basalibus 1, ad ½ laminae elongatis, glandulis basalibus nullis: petiolo 6–17 mm. Receptacula axillaria binata, maturitate aurantiaco-rubra: pedunculo 3–5 mm. longo, breviter brunneo-villoso: bracteis basalibus ovato-acutis, appresse pilosis: corpore receptaculi 6–8 mm. lato (8–10 mm., vivo), subellipsoideo, pilis flexuosis brunneis tenue villoso, lente glabrescenti, ostiolo non depresso: setis internis paucis parvis albidis: cellulis scleroticis nullis. Flores feminei sessiles: tepalis tenuibus rubris: ovario sessili. Flores neutri dispersi sessiles. Semina 1.5–1.8 × 0.8 mm. Cystolitha pauca venas secundum hypogena. Papua (Carr 12254, Koitaki, *typus* herb. Singapore; 15563, Isuarava).

F. bakeri Elmer affinis sed foliis acuminatis, pilis flexuosis inter alia differt.

F. cinnamomea Corner sp. nov.—Scandens gracilis, foliis laxe spiraliter dispositis. Omnes partes pilis flexuosis laete ferrugineis v. fulvido-cinnamomeis dense et breviter lanuginosae, laminae pagina superior mox glabra. Ramuli 2–2.5 mm. crassi. Stipulae –7 mm. longae, appresse pilosae. Lamina 4.5–9 × 2.5–5.8 cm., ovata, breviter acuminata, basi rotundata v. subcordata, integra, subcoriacea: costis lateralibus utrinsecus 3–5, intercostis –6, nervulis reticulatis indumento brunneo obscuratis: costis basalibus utrinsecus 2, ad $\frac{1}{2}$–$\frac{2}{3}$ laminae elongatis, glandulis basalibus 2: petiolo 12–22 mm. longo, gracili. Receptacula axillaria binata brunneo-lanuginosa: pedunculo 4–7 mm. longo: bracteis basalibus 3–4 mm. longis, ovato-acutis: corpore receptaculi 7–8 mm. lato (10–12 × 9–10 mm., vivo), subellipsoideo: setis internis et cellulis scleroticis nullis. Flores neutri nulli. Flores feminei sessiles: ovario sessili. Semina 1.7–2 × 1 mm., latiuscula, anguste alata. Cystolitha nulla. Papua (Carr 13682, Alola, c. 2,000 m. alt., *typus* herb. Singapore).
Gracilis, indumento laeto distincto.

F. hypophaeola Corner sp. nov.—Gracilis scandens, foliis laxe spiraliter dispositis. Omnes partes pilis flexuosis obscure cervicoloribus v. fusco-brunneis lanuginosae, laminae pagina superior mox glabra. Ramuli 2 mm. crassi. Stipulae parvae strigosiusculae. Lamina 6–9 × 2.5–3.5 cm., ovato-lanceolata, ad apicem subacutum attenuata, basi rotundata v. subcordata, integra, tenue coriacea: costis lateralibus utrinsecus 4–5, subtus leviter elevatis, intercostis 1–3, nervulis indumento spisso obscuratis: costis basalibus utrinsecus 1, ad $\frac{1}{3}$–$\frac{1}{2}$ laminae elongatis, glandulis basalibus 2: petiolo 9–15 mm. longo. Receptacula axillaria, ? solitaria, lente glabrescentia, maturitate rubra: pedunculo 5–6 mm. longo: bracteis basalibus 3 mm. longis, ovato-acutis: corpore receptaculi 10 mm. lato, subgloboso: setis internis nullis: cellulis scleroticis copiosis. Flores feminei ut in *F. hypohaea* Schl. Cystolitha hypogena. Netherlands New Guinea (Kanehira et Hatusima 13504, *typus* herb. Leiden).
F. hypophaeae Schl. affinis sed multo gracilior.

SUBGEN. FICUS SECT. KALOSYCE (MIQ.) CORNER COMB. NOV.

Synoecia Miq. sect. *Kalosyce* et sect. *Verae* Miq. Fl. Ind. Bat. I, 2 (1859) 328, 329.—*Urostigma* Gasp. sect. *Apiosycea* Miq. Fl. Ind. Bat. Suppl. (1860) 440.—*Ficus* subgen. *Synoecia* Miq.

Ann. Mus. Bot. Lugd. Bat. 3 (1867) 289.—*Ficus* sect. *Synoecia* (Miq.) Benth. et Hook. Gen. Pl. 3 (1880) 369.—Type:—*Synoecia sumatrana* Miq. (*F. aurantiacea* Griff.).

The well-established sectional name *Synoecia* is antedated firstly by sections *Verae* Miq. and *Kalosyce* Miq., which were published simultaneously, and then by sect. *Apiosycea* Miq. I have chosen sect. *Kalosyce* as the correct name because sect. *Verae,* in spite of its meaning, was a mixture and is not a proper sectional name. Sect. *Kalosyce* had only one species, *Synoecia sumatrana* Miq., which is the now well-known *F. aurantiacea* Griff. and is a typical representative of sect. *Synoecia.* Sect. *Verae* included two species, *Synoecia diversifolia* Miq., which is *F. deltoidea* Jack (subgen. *Ficus* sect. *Ficus*) and *S. falcata* Miq., which, as *F. falcata* Thunb., is the sterile, bathyphyll state of *F. punctata* Thunb. and the second well-known species of sect. *Synoecia.* Miquel realised this mixture by 1867 when he made *Synoecia* a subgenus of *Ficus* and excluded from it *S. diversifolia,* thereby rendering *S. falcata* the type of *Synoecia,* subgen. *Synoecia,* and sect. *Synoecia.* Sect. *Apiosycea* contained only *Urostigma apiocarpum* Miq., which is *F. apiocarpa* Miq. If the genus *Synoecia* were to be re-instated, then sect. *Verae* would become sect. *Synoecia,* with sect. *Kalosyce* as a synonym, and sect. *Apiosycea* would replace what I have called ser. *Apiocarpeae;* unfortunately as a section, *Synoecia* dates from 1880.

ser. **Apiocarpeae** Corner ser. nov.—*Urostigma* Gasp. sect. *Apiosycea* Miq. l.c.—Lamina symmetrica, areolis subtus haud foveolatis. Bathyphylla vix evoluta. Receptacula plerumque axillaria. 3 spp. Typus:—*F. apiocarpa* Miq.

ser. **Punctatae** Corner ser. nov.—Lamina saepe asymmetrica, areolis subtus foveolatis et saepe pubescentibus. Bathyphylla plerumque bene evoluta, a foliis acrophyllis distincta. Receptacula saepe cauliflora. 14 spp. Typus:—*F. aurantiacea* Griff.

subser. **Punctatae.**—Costae laterales supra haud impressae saepe ut lineae leviter elevatae. Lamina tenuiter coriacea. 7 spp. Typus: —*F. aurantiacea* Griff.

subser. **Ruginerviae** Corner subser. nov.—Costae laterales, et saepe intercostae nervulique reticulati, supra impressae, subtus crassae et saepe valde elevatae. Lamina rigide coriacea, sicco brunnea. 7 spp. Typus:—*F. ruginervia* Corner.

ser. Apiocarpeae Corner

F. apiocarpa Miq. var. **villosa** Corner v. nov.—Ramuli, petioli, et costae (subtus) pilis patentibus brunneolis –1 mm. longis villosi. Receptacula albido-villosa. Sarawak (Bur. Sci. 1876, s.l., *typus* herb. Manchester).

ser. Punctatae Corner subser. Punctatae

F. aurantiacea Griff. Notul. 4 (1854) 394: Ic. Pl. As. (1854) t. 555.—*Synoecia sumatrana* Miq. Fl. Ind. Bat. I, 2 (1859) 329. —*F. callicarpa* Miq. Ann. Mus. Bot. Lugd. Bat. 3 (1867) 268, 289, f. 10B.—The names *F. aurantiaca* Kunth et Bouch., *F. aurantiaca* Noronh. and *F. aurantiaca* Wall., listed in the Index Kewensis, are *nomina nuda,* and cannot invalidate Griffith's name.

var. **angustifolia** Corner nom. nov.—*F. callicarpa* Miq. v. *angustifolia* Corner, Gard. Bull. S.S. 10 (1939) 120.

var. **parvifolia** Corner nom. nov.—*F. callicarpa* Miq. v. *parvifolia* Corner, id. 116.

Note. *F. callicarpa* Miq. v. *crassinervia* Corner is *F. ruginervia* Corner (see below): *v. multinervia* Corner is *F. singalana* King.

F. scratchleyana King, J. As. Soc. Beng. 55 (1887) 404; Ann. R. Bot. Gard. Calc. 1, 2 (1888) App. 5, pl. 229A; haud Corner Gard. Bull. S.S. 10 (1939) 142 (= *F. peninsula* Elm.).—Through false information, I was lead to suppose that the leaves of *F. scratchleyana* are devoid of stomatal pits in the areolae. A glance at the type, twelve years later showed me the error at once.

var. **aurantiola** Corner v. nov.—Lamina minor, 4–14 × 2–5.5 cm., anguste elliptica, oblongo-elliptica, v. lanceolato-elliptica, acuminata, basi rotundata v. cuneata: costis lateralibus utrinsecus 4–9 (–12), angulo lato exeuntibus: costis basalibus brevibus: petiolo 5–30 mm. longo. Receptacula minora axillaria solitaria, 8–15 × 8–13 mm., globosa v. ellipsoidea: pedunculo 2–10 mm. longo: bracteis 1–1.5 mm. longis: pedicello nullo. Tepala 2–3 (mascula) 3–4 (feminea, cecidiophora) albida v. roseola. Flores masculi 3–5 mm. longi, ceidiophori et feminei 2–3.5 mm. Semina 1.6–1.8 mm. longa, compressa, oblonga, anguste carinata. New Guinea.

Forsan species nova; ut videtur communis.

Aet et Idjan 916 (Jappen-Biak, *typus* herb. Leiden); Brass 3844 (T.N.G., Central Div.), 7173 (Fly River, Palmer River); Clemens 2232, 3247 (Morobe Distr.); Ledermann 9587, 11405 (Sepik); NGF 7782 (West. Highlands), 8745 (Morobe Distr.).

var. **rhopalosycia** (Diels) Corner comb. nov.—*F. rhopalosycia* Diels, Engl. Bot. Jahrb. 67 (1935) 232.—Glabra. Lamina 4–7 cm. lata, anguste elliptica: costis lateralibus quasi rectangulatis. Receptacula pyriformia, magnitudine ut in v. *scratchleyana:* bracteis basalibus 4 mm. longis. New Guinea (Hellwig Gebirge, Pulle 643; *typus* herb. Berlin).

F. ruginervia Corner sp. nov.—*F. callicarpa* Miq. v. *crassinervia* Corner, Gard. Bull. S.S. 10 (1939) 118, f. 33.—Ramuli, petioli, et costa media subtus pilis brunneolis plus minus patentibus 0.5–1 mm. longis tenue pilosi, v. subglabri. Lamina 2–8 × 1.1–4.7 cm., elliptica v. obovata, obtusa, basi valde asymmetrica uno latere cordata v. subauriculata, laevis, sicco brunnea, nervis nervulisque supra valde impressis, subtus crassis elevatis: costis lateralibus utrinsecus 3–7, areolis piloso-foveolatis: costis basalibus utrinsecus 1–2, brevibus: petiolo 3–10 mm. Receptacula ad tubercula cauliflora, glabra marmorata, ut in *F. aurantiacea* Griff. sed plerumque subglobosa. Flores ut in *F. aurantiacea* sed ovariis femineis longius pedicellatis (–4.5 mm.). Malaya. Sumatra, Sarawak. *Typus:*—Sing. F.n. 28446, herb. Singapore.

Venis supra impressis subtus crassis lamina sicca brunnea rectius prope *F. singalanam* referenda.

SECT. **SINOSYCIDIUM** CORNER SECT. NOV.

Dioca. Frutex v. arbor, stipulis binatis liberis. Receptacula ramiflora pedicellata, bracteis lateralibus ad pedicellum corpusque dispersis: setis internis paucis: cellulis scleroticis nullis. Tepala carnea v. albida, membranacea, libera. Flores masculi ostiolares sessiles, et dispersi pedicellati, diandreae, pistillodio nullo: antheris non mucronatis. Ovarium albidum, stigmate femineo breviter bifido. Semina breviter oblonga, leviter carinata, laevia. Cystolitha hypogena. China, 1 sp., *F. tsiangii* Merr. ex Corner.

The ramiflorous bracteate receptacles are like those which occur in the sections *Sycidium, Sycocarpus,* and *Adenosperma;* further, the scabrid leaves and the paired stipules crowded over the stem-apex resemble the state in sect. *Sycidium* ser. *Copiosae.* The disperse, bistaminate male flowers, however, are exceptional and

agree with the condition in some species of sect. Ficus, where the leaf, stipules, and receptacle are anomalous. To include the single species in either sect. *Sycidium,* where some species may certainly have 1–2 stamens in the male flower, or sect. *Ficus,* would be confusing.

F. tsiangii Merr. ex Corner.—Frutex v. arbor –9 m. alta, laxe ramosa, internodis elongatis, foliis spiraliter dispositis longipetiolatis, pilis albidis –0.5 (–1) mm. longis hispidulo-scabridis, non muriculatis, ramulis petiolisque glabrescentibus. Ramuli 2–4 mm. crassi, pallide ochracei v. brunneoli. Stipulae –7 mm. longae, binatae, late lanceolatae, appresse puberulae, caducae, ad apicem ramuli confertae. Lamina 8–23 × 5–18 cm., ovata, ovato- v. obovato-elliptica, apice latiuscule acuminata 7–13 mm. longo, basi subcordata, rotundata v. late cuneata, dentata, membranacea, supra scaberrima, subtus hispidula, sicco viridis: costis lateralibus utrinsecus 3–4 (–5), obliquis, intercostis laxis 2–5, subtus elevatis: costis basalibus utrinsecus 1 (–2). ad ½ laminae elongatis, glandulis basalibus 2: petiolo 30–140 × 1.5–2.5 mm. Receptacula ramiflora (? cauliflora) ad ramulos efoliatos brevissimos tuberculiformes, hispido-scabra, maturitate rubra; pedicello 5–40 mm. longo, bracteis lateralibus 2–3, 2–3 mm. longis, dispersis, raro in collare ternatis: corpore receptaculi 16–25 × 12–20 mm. (immaturo), subgloboso v. ellipsoideo, bracteis lateralibus nonnullis 2–3 mm. longis dispersis praeditis, ostiolo bracteis apicalibus erectis hispidulis numerosis confertis occluso: setis internis albidis brevibus, paucis v. copiosis: cellulis scleroticis nullis. Tepala 3–5, albida v. carnea, libera, membranacea, glabra v. puberula, ovario longiora. Flores masculi ordinibus 2–3 ostiolares subsessiles, et pedicellati dispersi, pedicellis carneo-maculatis –3.5 mm. longis: tepalis spathulatis: staminibus 2, raro 1, ad basim setulis circumdatis, antheris non mucronatis. Flores cecidiophori sessiles v. pedicellati, masculis pedicellatis breviores: tepalis anguste lanceolatis: ovario albido, substipitato. Flores feminei ut cecidiophori: ovario sessili: stylo sparsim setuloso, stigmate subbifido. Flores neutri nulli. Semina 1.2 mm. longa, lentiformia, subcarinata, laevia. Cystolitha hypogena: pili papillati, aseptati. China, in silvis 500–1,200 m. alt. Hupeh:—H. C. Chow 540, Patung Hsien. Szechwan:—W. P Fang 2566, Omei Hsien. Kwangsi:—A. N. Steward and H. C. Cheo 323, Ling Yuen Hsien; Y. Tsiang 7048, Tuhshan. Kweichow:—Y. Tsiang 4315, Chengfeng (*typus,* herb. Edinburgh). Yunnan:—Henry 9407 (Mengtsze), 13316 (Yuan chiang); Y. Tsiang 12288.

Y. Tsiang's collections have been named *F. tsiangii* by Merrill in herbaria, but I cannot find that the species has been published. It is a remarkable plant appearing ancestral to some, at least, of sect. *Sycidium.*

SECT. ADENOSPERMA CORNER

Reinwardtia 4 (1958) 43.—ser. *Amphigenae* et *Hypogenae* Corner id. 44.

ser. Amphigenae Corner

F. saccata Corner sp. nov.—Arbuscula –4 m. alta, sparsim ramosa, foliis confertis spiraliter dispositis. Glabra v. petioli pilis patentibus –1 mm. longis sparsim pubescentes, receptacula sparsim appresse pubescentia. Ramuli 5–7 mm. crassi, brunnei cavi. Stipulae 20–40 mm. longae et latae, ovato-saccatae apiculatae connatae, irregulariter fissae, persistentes. Lamina 25–36 × 11–13.5 cm., obovata, breviter acuminata, ad basim anguste cordatum gradatim attenuata, integra membranacea laevis, sicco fusco-brunnea: costis lateralibus utrinsecus 10–13, intercostis –7 strictis, subtus leviter elevatis: costis basalibus utrinsecus 3–4, brevibus, glandulis basalibus 2: petiolo 10–50 mm., stipulis obtecto. Receptacula axillaria binata sessilia, stipulis obtecta, 20 mm. lata, subglobosa, tenuiter appresse pilosa, bracteis lateralibus nonnullis appressis v. subpatentibus glabris 4–6 mm. longis praedita, ostiolo bracteis apicalibus prominentibus glabris 3–4 mm. longis occluso: bracteis basalibus 3, 5–7 mm. longis, ovato-oblongis, glabris.: setis internis copiosis brunneolis: cellulis scleroticis copiosis. Flores masculi et cecidiophori ? Flores feminei 2–3 mm. longi, sessiles: tepalis 4–6 rubris liberiso oblongis glabris ovario rubro sessili v. breviter stipitato equalibus: stylo fere gynobasali, glabro, rubro. Semina 2–2.2 × 1.5 ×0.6–0.8 mm. compressa, carinata, basi leviter dupliciter carinata, laevia. Cystolitha amphigena. Papua (Lala River, in silvis montanis 1,800 m. alt.; Carr 14063, typus, herb. Singapore).

Species singularis, arbusculas sect. *Sycocarpi* simulans, sed tepalis liberis, seminibus ut in sect. *Adenospermate.*

F. mollior F. v. Muell. ex Benth Fl. Austral. 6 (1873) 173.— *F. gazellae* Engl. Bot. Jahrb. 7 (1886) 452.—*F. mollior* may be somewhat hairier than *F. gazellae,* but there is no other difference and there are intermediates.

var. **pseudocovellia** Corner v. nov.—Receptacula glabra, pyriformia. Neth. New Guinea (Mamberamo, Versteeg 46, *typus* herb. Leiden).

var. **sessilis** Corner v. nov.—Receptacula sessilia v. fere. Papua. Brass 26014 et 27320 (Fergusson Isl.), 28349 et 28526 (Rossel Isl.), 28069 (Sudest Isl.); Carr 12360 (Rouna Falls, *typus* herb. Singapore); Lister Turner 88.

forma **riparia** Corner f. nov.—Lamina 6–10 x 2–3.5 cm., lanceolato-elliptica, acuta v. subacuminata, basi cuneata: petiolo 5–15 mm. longo. Stipulae persistentes. Receptacula axillaria sessilia. Neth. New Guinea (Sorong; Pleyte 517, *typus* herb. Leiden).

F. verticillaris Corner sp. nov.—C. T. White, J. Arn. Arb. 31 (1950) 82, ut *F. charadrophila* Summerh.—Frutex v. arbor parva –10 m. alta, cortice pallide griseo. Folia rigida nitida, spiraliter disposita, plerumque conferta, etiam subverticillata. Glabra. Ramuli 1.5–2.5 mm. crassi, fusco-brunnei. Stipulae parvae, caducae. Lamina –11 × 4.5 cm., anguste elliptico-obovata, obtuse subacuta v. subacuminata, basi cuneata, integra, chartaceo-subcoriacea, fragilis, subscabrida, supra minute ruguluso-scrobiculata, sicco griseo-viridis v. fusco-viridis: costis lateralibus utrinsecus 8–13, intercostis 0–1, subtus costis lateralibus solum conspicuis: costis basalibus utrinsecus 1, brevibus: petiolo 10–18 mm. Receptacula axillaria, binata v. solitaria, maturitate rubra: pedunculo 4–18 mm. longo: bracteis basalibus 3 minutis, margine saepe ciliolatis: pedicello 2–6 mm. longo: corpore receptaculi 7–8 mm. lata (–12 mm., vivo), subgloboso v. depresso-globoso, bracteis lateralibus nullis: setis internis paucis brunneis v. nullis: cellulis scleroticis in strato receptaculi cecidiophori interno copiosis. Tepala 4–5 rubra ovata libera glabra, ovario equalia v. breviora. Flores masculi ordine uno ostiolares sessiles: stamine uno. Flores feminei et cecidiophori sessiles: ovario sessili, pallide ochraceo dein subrubro: stylo valde gynobasali. Semina ? vix carinata (immatura). Solomon Islands, in silvis –1,200 m. alt.

Habitu *Baccaureae parvifoliae* (Euphorbiaceae). *F. arbusculae* et *F. adenosperma* affinis, sed foliis parvis rigidis, sicco fragilibus chartaceis, nervis obscuris, pedunculo gracili, et bracteis lateralibus nullis differt. Var. *robusta* ad *F. umbonatam* Miq. attingens.

Brass 2838 (San Cristoval), 3488 (Florida), 3523 (N'gela); Kajewski 2155 (Bougainville, Buin, *typus* herb. Copenhagen), 2366 (Malaita), 2584 (Guadalcanal); C. T. White (BSIP) 202 (New Georgia).

var. **robusta** Corner v. nov.—Ramuli, petioli, receptacula et paginae laminae inferiores minute puberuli. Ramuli 3–4 mm. crassi. Stipulae –18 mm. longae. Lamina –12 × 4.5 cm. Receptacula 12–15 mm. lata: pedunculo –10 × 1–1.5 mm.: bracteis basalibus 1.5 mm. longis. Tepala 3–4. Ovarium cecidiophorum sessile v. stipitatum. Stomata immersa.

Brass 2883 (San Cristoval, *typus* herb. Leiden); E. S. Brown W/347 (Guadalcanal).

F. adenosperma Miq. v. **adenosperma** forma **angustifolia** Corner f. nov.—Lamina 2–14 × 0.5–3 cm., lanceolata, ad apicem subacutam attenuata: intercostis 0–1. Celebes, Moluccas.

Bloembergen 4449 (Soela Sanana, *typus* herb. Leiden); Rant 34 et v. Steenis 10419 (Celebes, Bantimoerong).

var. **chaetophora** (Warb.) Corner comb. nov.—*F. chaetophora* Warb. in K. Schum. et Laut. Nachtr. Fl. Deutsch. Schutzg. Suds. (1905) 246.—This is the state with spreading hairs, particularly at the nodes, and with the subcordate leaf-base. It is common in New Guinea.

var. **glabra** Corner v. nov.—*F. depressa* Benth. Fl. Austral. 6 (1873) 172.—*F. turbinata* Ridley, Tr. Linn. Soc. ser. 2, Bot. 9 (1916) 148.—Glabra v. fere. Lamina 7–13 × 2.2–4.5 cm., anguste elliptica v. lanceolato-elliptica, basi cuneata: costis lateralibus utrinsecus (5–) 8–12. Receptacula saepe brevipedunculata v. subsessilia, bracteis lateralibus nullis. Key Isl., New Guinea, Solomon Isl., Queensland. *Typus:*—Kajewski 2480, Guadalcanal Isl., herb. Leiden.

A. var. *adenosperma* vix separabilis, sed formae glabrae extremae satis distinctae.

var. **microlepis** Corner v. nov.—Glabra. Lamina 8–18 × 3.5–9 cm., elliptica, subacuta v. subacuminata, basi cuneata, intercostis 2–5 laxis. Receptacula plerumque ad axillas defoliatas ramiflora, 6–7 mm. lata, globosa, bracteis lateralibus numerosis parvis saepe recurvatis praedita: pedunculo 2–6 mm. longo. New Guinea.

Receptacula ut in *F. comitis* King, folia ut in *F. adenosperma*.

Brass 23822 (Papua, Milne Bay District): BW 464 (Manokwari); Hoogland 4451 (Terr. New Guinea, Northern Distr., Tufi subdistr., *typus* herb. Leiden); NGF 7861 (Terr. New Guinea, Morobe, Upper Bulolo Valley).

ser. Hypogenae Corner

F. austrina Corner sp. nov.—Summerhayes, J. Arn. Arb. 13 (1932) 106, ut *F. moseleyana* King.—Arbor –15 m. alta, foliis spiraliter dispositis. Ramuli et petioli pilis fulvidulis appressis –1 mm. longis vestiti v. fere glabri: laminae glabrae. Ramuli 3–5 mm. crassi, brunnei. Stipulae 20–45 mm. longae, lanceolatae, glabrae, caducae. Lamina 11–23 × 6–15 cm., obovata v. elliptico-obovata, obtusa v. subacuta, basi subcordata v. rotundato-cuneata, integra, laevis, membranacea v. subcoriacea, sicco griseo-brunnea: costis lateralibus utrinsecus 5–8, intercostis laxis –7, subtus haud v. leviter elevatis: costis basalibus utrinsecus 3 (–4), ad ½ laminae elongatis: petiolo 10–40 × 2.5–3 mm. Receptacula axillaria binata glabra: pedunculo 1–10 mm. longo, crasso: bracteis basalibus 3, 1–2 × 2–2.5 mm., subcrecentiformia obtusa: corpore receptaculi 15 mm. lata (immatura), depresso-globosa, bracteis lateralibus nullis, ostiolo bracteis apicalibus plus minus umbonato: setis internis nullis: cellulis scleroticis in pariete rec. femin. copiosis. Flores masculi et cecidiophori? Flores feminei sessiles: tepalis 3–4 liberis lanceolatis v. spathulatis glabris, ovario subrubro sessili v. breviter stipitato longioribus: stylo glabro, valde laterali v. gynobasali. Semina ? Cystolitha hypogena. Solomon Isl., New Hebrides, ad terram corallinaceam littoralem.

Ut *F. pedunculosae* Miq. var. *segaarensis* (Engl.) Corner (*F. moseleyana* King) persimilis, sed stylo gynobasali ut in sect. *Adenospermae*. Receptacula cecidiophora matura desiderata.

Brass 2574 (San Cristoval, Waimamura, *typus*, herb. Kew); J. H. L. Waterhouse 176 (New Georgia); Kajewski 433 (Banks Groups, Vanua Lava Isl.).

F. casearioides King, J. As. Soc. Beng. 55 (1887) 403; Ann. R. Bot. Gard. Calc. 1, 2 (1888) App. 5, pl. 228B.—*F. hylobia* Diels, Engl. Bot. Jahrb. 67 (1935) 186.—var. **gamosepala** Corner nov.—Perianthium gamophyllum obtuse 2–4 lobatum. Ternate, New Guinea.

Beguin 1527 (Ternate); Brass 23302, 24776 (Papua, Milne Bay District); Carr 13179 (Papua, Boridi, *typus* herb. Singapore), 14548 (Boridi); Carr 15711, 15797, 15847 (Lala River); NGF 4309 (Morobe), 6784 (Eastern Highlands).

F. subcuneata Miq. Ann. Mus. Bot. Lugd. Bat. 3 (1867) 235, 297.—*F. stoechotricha* Diels et *F. trichoneura* Diels, Engl. Bot. Jahrb. 67 (1935) 225, 230—*F. formosa* Summerh. J. Arn. Arb.

22 (1941) 97.—Miquel's syntypes at Leiden and Utrecht (Teysmann 5548, Halmaheira, and de Vriese s.n., Ceram, with one broken fig) leave no doubt of the identity of this characteristic species.

F. tenella Corner sp. nov.—Arbor gracilis –10 m. alta, latice albido, foliis spiraliter dispositis. Glabra v. novelli pilis brunneis –1 mm. longis appressis tenue vestiti. Ramuli 1.5–2.5 mm. crassi, brunnei, aliquando pilis microscopicis subfurfuracei. Stipulae 10–30 mm. longae, lanceolatae, glabrae, persistentes. Lamina 6–15 × 1.5–3.7 cm., lanceolato-elliptica v. anguste obovata, apice acuminata v. subcaudata –17 mm. longo, basi anguste cuneata, integra, membranacea, sicco fusco-brunnea; costis lateralibus utrinsecus 9–11, intercostis –7 demissis; costis basalibus utrinsecus 1, glandulis basalibus nullis: petiolo 4–14 mm. Receptacula axillaria binata v. solitaria: pedicellis 4–11 mm. longis, bracteis lateralibus parvis 2–3 dispersis v. in collare ad medium pedicellum ternatis: corpore receptaculi 6–9 mm. lato (10–12 mm. vivo), subgloboso, bracteis lateralibus parvis 1–3 praedito, ostiolo subdepresso bracteis apicalibus 3–4 planis occluso: setis internis copiosis, 0.5–1 mm. longis: cellulis scleroticis nullis. Flores masculi et cecidiophori ? Flores feminei sessiles: tepalis 4, pallide rubris, glabris liberis oblongis, ovario fusco-rubro sessili v. substipitato equalibus: stylo rubro, gynobasali, glabro. Cystolitha hypogena. Papua.

F. erythrospermae affinis, sed omnibus partibus minor, stipulisque non caducis.

Brass 23560 (Milne Bay District), 27510 (Misima Isl.); Carr 14639, 14989 (Boridi; 14989, *typus* herb. Singapore).

F. funiculosa Corner sp. nov.—*F. trichoneura* Diels v. *lachnocarpa* Diels, Engl. Bot. Jahrb. 67 (1935) 230.—Arbor –25 m. alta, cortice brunneo v. rufobrunneo, latice albido, foliis spiraliter dispositis v. subdistichis. Ramuli, folia, et receptacula pilis albidis v. fulvis plus minus patentibus 1–2 mm. longis dense tomentosi, etiam pilis flexuosis numerosis intertextis: lamina supra mox glabrescens. Ramuli 2.5–6 mm. crassi. Stipulae 12–20 mm. longae, late lanceolatae, connatae, caducae. Lamina 9–23 × 6–18 cm., ovata, late elliptica v. subobovata, apice breviter et obtusiuscule acuminata –12 mm. longo, basi subcordata, rotundata, v. late cuneata, integra, laevis, subcoriacea, sicco brunnea: costis lateralibus utrinsecus 8–11, obliquis, saepe ad furcas marginem versus subtus glandulatis, intercostis 6–11, subtus

leviter elevatis: costis basalibus utrinsecus 3–5, ad $\frac{1}{4}$–$\frac{1}{3}$ laminae elongatis, glandulis basalibus 2: petiolo 15–45 × 2–4 mm. Receptacula axillaria binata v. solitaria, dense tomentosa: pedicello 4–12 × 2.5 mm., bracteis lateralibus 1–2 parvis dispersis, raro in collarem instructis: corpore receptaculi 20–30 mm. lato (tomento excluso: –45 mm. vivo), depresso-globoso, bracteis lateralibus parvis 1–3 dispersis, ostiolo bracteis apicalibus numerosis, ut in disco 2.5–4 mm. lato, occluso: setis internis 1–2.5 mm. longis, copiosis mollibus subflexuosis: cellulis sclereticis nullis, v. in strato rec. cecid. interno numerosis. Tepala 3–4 libera glabra lanceolata rubra. Flores masculi ordinibus 2–3 ostiolares sessiles: tepalis spathulatis: stamine uno. Flores cecidiophora sessiles v. breviter pedicellati: tepalis ovario sessili v. longistipitato, rubro v. rubromarginato, plus minus equalibus. Flores feminei sessiles: tepalis ovario sessili v. longistipitato rubromarginato v. rubromaculato multo brevioribus: stylo subgynobasali. Semina 1.7–1.9 mm. longa, multo compressa, auriculiformia, obtuse carinata. Cystolitha hypogena. New Guinea, New Britain.

F. trichocerasae Diels affinis, sed tomentosior et receptaculis majoribus.

Beccari s.n. (Ramoi; R.Ist. Fir. 9324); Brass 24002, 24106 (Milne Bay District), 27283 (Fergusson Isl.); BW 2525, 2767 (Manokwari); Hoogland 3555 (Terr. New Guinea, Northern District, *typus* herb. Leiden), 4237 (T.N.G., Northern District); Ledermann 7922 (*typus, F. trichoneura* v. *lachnocarpa*); NGF 7031 (New Britain, Trans-Keravat); J. C. Saunders 450 (T.N.G., Madang District).

F. trichocerasa Diels var. **glabristipula** Corner v. nov.—Stipulae glabrae. Receptacula pedunculo saepe breviori 1–2.5 (–4) mm. longo: cellulis scleroticis in strato rec. fem. interno numerosis. Tepala oblongo-spathulata. Flores cecidiophori pedicellis –2 mm. longis praediti. Flores feminei stylo fere gynobasali. Papua. Brass 23257 (Milne Bay District, *typus,* Gray herb. Harvard); Brass 27468 (Misima Isl.), 28447 (Rossel Isl.); Carr 14162 (Alola).

F. erythrosperma Miq. Ann. Mus. Bot. Lugd. Bat. 3 (1867) 226, 293.—*F. pycnoneura* Laut. et K. Schum, Fl. Deutsch. Schutzgeb. Suds. (1901) 275.—*F. lachnocarpa* Warb. in Laut. et K. Schum Nachtr. Fl. Deutsch. Schutzgeb. Suds. (1905) 243.—*F. xanthoxyla* Summerh. J. Arn. Arb. 10 (1929) 154.—Miquel's syntypes (Forsten, Tondano, and Riedel, Menado, H.B. 5814) are

at Leiden and Utrecht and leave no doubt of their identity with *F. pycnoneura.* Forsten's collection is the better and should be regarded as the holotype at Leiden. There are nine more recent collections from Celebes.

SUBGEN. FICUS SECT. NEOMORPHE KING

Ann. R. Bot. Gard. Calc. 1, 1 (1887) 2; 1, 2 (1888) 165.—Dioecious. Perianth of free or more or less gamophyllous tepals, red to brownish. Male flowers ostiolar: stamens 2, filaments shortly joined, anthers more or less mucronate. Gall—and female stigma simple. Seed lenticular, smooth, slightly keeled. Cystoliths hypogenous. Large buttressed trees, mostly cauliflorous. Figs pedunculate with a collar of three basal bracts, no lateral bracts: mostly without sclerotic cells in the wall. 6 spp., India and South China to Solomon Isl. and Queensland. Type:—*F. variegata* Bl.

I have redefined this section as intended by King. He put fifteen species into it, but five must be referred to other sections which he maintained, four are conspecific with others, two are false species, and four remain as the foundation of the section. Thus:—

F. macrocarpa Wight and *F. guttata* (Wight) King are a variety of *F. laevis* Bl. (sect. *Rhizoclaude* Endl.).

F. grandis King, *F. d'Albertisii* King, *F. pomifera* Wall. ex King belong to sect. *Sycocarpus* Miq (*Covellia* Gasp.).

F. glomerata Roxb. belongs to subgen. *Sycomorus* Miq. and has *F. acidula* King, *F. henrici* King, and *F. lanceolata* B. Ham. as *F. racemosa* Linn. v. *elongata* King.

F. aruensis King consists of the twigs and leaves of *F. arfakensis* King (sect. *Sycocarpus* Miq.) mounted by error with the figs of *F. wassa* Roxb. (sect. *Sycidium* Miq.), and is not, therefore, representative of a living plant.

F. clarkeana King consists of the twigs and leaves of *F. tinctoria* Forst. f. ssp. *parasitica* (Willd.) Corner with the figs of *F. racemosa* Linn, and from the description is clearly a mistake of collecting the epiphytic *F. tinctoria* and the cauliflorous figs of its host as being one plant: it is a fudge.

F. variegata Bl., with *F. sycomoroides* Miq. as a variety of it, *F. nodosa* Teysmn. et Binn., and *F. roxburghi* Miq., which is *F. auriculata* Lour., remain to define the section.

The section, thus emended, must be divided into two series *Variegatae* and *Auriculatae,* which show alliance with subgen. *Sycomorus* in the first case and sect. *Sycocarpus* in the second. Ser. *Variegatae* are larger buttressed cauliflorous trees with the free

tepals, subsessile flowers, and compressed male flowers with two stamens as in subgen. *Sycomorus,* but they are dioecious and geographically isolated from the African region which is the centre of subgen. *Sycomorus.* Ser. *Auriculatae,* in contrast, consists of the one species *F. auriculata* Lour., which is so close to *F. oligodon* Miq. (sect. *Sycocarpus*) that the two species seem to interbreed in Indochina. To include Ser. *Auriculatae* in sect. *Sycidium* would destroy the precise character of the entire perianth which fits all the many species of sect. *Sycidium.* Here is a matter for resolution.

Ser. *Variegatae* can be divided, likewise, into two subseries. That which I call subser. *Laciniatae* has the laciniate tepals so characteristic of subgen. *Sycomorus,* but it is the New Guinea group which is furthest removed geographically from the African subgen. *Sycomorus.* Here is another matter for resolution.

ser. **Auriculatae** Corner ser. nov.—Flores feminei et cecidiophori longepedicellati: tepalis rubris, integris, liberis v. breviter connatis: ovario albido: stylo femineo longo piloso. 1 sp., *F. auriculata* Lour.

ser. **Variegatae** Corner ser. nov.—sect. *Neomorphe* King subsect. *Subcrassiusculifoliae* Sata (lectotypus, *F. variegata* Bl.) et subsect. *Tenuifoliorae* Sata (lectotypus, *F. garciae* Elmer) Monogr. (1944) 362, 364, 386.—Flores feminei et cecidiophori plus minus sessiles v. breviter pedicellati: ovario rufo-brunneo: stylo glabro, brevi. Flores masculi compressi. Typus:—*F. variegata* Bl.

subser. **Variegatae.**—Tepela integra. Receptacula processibus floriferis internis deficientibus: bracteis basalibus brevibus, 1–2 mm. longis. Typus:—*F. variegata* Bl.

subser. **Laciniatae** Corner suber. nov.—Tepala laciniato-dentata. Receptacula processibus floriferis internis praedita: bracteis basalibus 2–5 mm. longis. Typus:—*F. nodosa* Teysm. et Bin.

ser. Variegatae Corner subser. Variegatae

F. variegata Bl. var. **garciae** (Elmer) Corner comb. nov.—*F. garcieae* Elmer, Leafl. Philip. Bot. 2 (1908) 550.

var. **ilangoides** (Elmer) Corner comb. nov.—*F. ilangoides* Elmer, Leafl. Philip. Bot. 9 (1937) 3445.

var. **sycomoroides** (Miq.) Corner comb. nov.—*F. sycomoroides* Miq. Ann. Mus. Bot. Lugd. Bat. 3 (1867) 230, 295.

None of these shows more than variation in leaf-shape, vein-number, or fig-shape and, as intermediates are frequent, I cannot maintain them as species.

ser. Variegatae subser. Laciniatae Corner

F. robusta Corner sp. nov.—Arbor –33 m. alta, ut *F. variegata* sed cortice pallide cremeo-viridi. Folia longepetiolata spiraliter disposita. Omnes partes primo pilis brunneolis erectis –1 (–1.5) mm. longis hispido-tomentosae, glabrescentes, v. ramuli et petioli primo glabri: nervuli subtus pilis brevibus albidis villosuli. Ramuli 6–9 mm. crassi. Stipulae –20 mm. longae, brunneo-sericeae. Lamina –40 × 35 cm., ovato-cordata, apice rotundata v. obtusa, basi alte cordata, denticulata v. integra, membranacea dein subcoriacea, supra scabrida, subtus hispido-villoso: costis lateralibus utrinsecus 5–6, intercostis numerosis strictis, subtus elevatis: costis basalalibus utrinsecus 3 (–4), ad $\frac{1}{2}$–$\frac{2}{3}$ laminae elongatis, glandulis basalibus 2: petiolo 6–20 cm. longo. Receptacula ad ramulos efoliatos –16 cm. × 10–25 mm., praecipue ad partem trunci superiorem cauliflora et ramiflora: pedunculo 10–25 mm. longo: bracteis basalibus 2 mm. longis, ovatis, obtusis v. subacutis, caducis: corpore receptaculi 25–40 mm. lato (40–60 mm., vivo), pyriformi, brunneolo-hispido dein glabro, ostiolo subdepresso bracteis apicalibus 3–5 occluso: setis internis copiosis brunneolis: pariete crasso (10–15 mm. vivo), processibus floriferis internis praedito, cellulis scleroticis paucis in strato interno. Flores masculi ordinibus nonnullis ostiolares, sessiles v. breviter pedicellati: perianthio gamophyllo: staminibus (1–) 2, filamentis breviter connatis, pistillodio saepe plus minus evoluto. Flores cecidiophori sessiles v. pedicello –3 mm. longo praediti: tepalis 3, liberis v. breviter connatis, lanceolatis integris v. plerumque laciniato-dentatis. Cystolitha hypogena. New Guinea, in silvis –400 m. alt.

F. nodosae Teysm. et Bin. affinis, sed indumento hispido, lamina supra scabrida, bracteis basalibus caudicis, setis internis copiosis, floribus majoribus, perianthio plus minus gamophyllo differt.

Carr 16323 (Papua, Kokoda); NIFS bb. 31341 (Hollandia); BW 432 (Manokwari); Hort. Bog. cult. XV J.B. XXIX δ (ex New Guinea: *typus*, herb. Bogor).

F. semivestita Corner sp. nov.—Arbor –38 m. alta, cortice griseo-viridi v. brunneolo. Folia longiuscule petiolata spiraliter disposita. Ramuli, petioli, costae (subtus) et receptacula pilis fulvidulis 0.5 mm. longis rectis v. flexuosis breviter villosi. Ramuli 4–6 mm. crassi. Stipulae –12 mm. longae, fulvo-sericeae. Lamina 12–24 × 8–18 cm., ovata, acuta v. subacuminata, basi

altiuscule cordata, integra, membranacea dein subcoriacea, supra laevis, subtus villosa: costis lateralibus utrinsecus 5–7, intercostis strictis –11, subtus valde elevatis: costis basalibus utrinsecus 3, ad ½ laminae elongatis, glandulis parvis basalibus 2: petiolo 25–70 mm. longo. Receptacula axillaria solitaria (an ramiflora ?), villosa, glabrescentia: pedunculo 17–20 mm. longo: bracteis basalibus 5 mm. longis, caducis: corpore receptaculi 30–40 mm. lato, subgloboso, ostiolo plano bracteis parvis apicalibus numerosis occluso: setis internis copiosis, 0.5–1 mm. longis, albidis v. brunneolis: pariete crasso, processibus floriferis internis praedito, cellulis scleroticis nullis. Flores masculi et cecidiophori ut in *F. robusta*. Cystolitha hypogena. New Guinea, in silvis –100 m. alt.

F. robustae Corner affinis sed lamina supra laevi, plus minus acuta, receptaculis axillaribus, bracteis basalibus longioribus.

BW 5724 (Sorong); Clemens 8767 (Morobe); Hoogland 5187 (Terr. New Guinea, Madang distr., Mt. Hellwig); NGF 7358 (Morobe, *typus* herb. Lae).

Taxonomic Notes on Ficus Linn., Asia and Australasia

VI. SUBGEN. FICUS SECT. SYCOCARPUS MIQ.

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Summary

New subsections, series, and subseries:—subsect. *Auriculisperma* Corner, ser. *Cynaroides* Corner, ser. *Theophrastoides* Corner, ser. *Vitienses* Corner; subsect. *Dammaropsis* (Warb.) Corner; subsect. *Pomifera* Corner, ser. *Pomifera* Corner, ser. *Lepidotae* Corner; subsect. *Macrostyla* Corner; subsect. *Sycocarpus*, ser. *Longetuberculatae* Sata, ser. *Tuberculifasciculatae* Sata, subser. *Praestantes* Corner, *Calopilinae* Corner, *Congestae* Corner, *Hispidae* Corner, *Axillares* Corner, *Fulvidulae* Corner, *Geocarpicae* Corner.

Earlier or substituted epithets:—*F. oligodon* Miq. (*F. pomifera* Wall. ex King), *F. squamosa* Roxb. (*F. saemocarpa* Miq.), *F. pachyrrachis* Laut. et K. Schum. (*F. grandis* King), *F. congesta* Roxb. (*F. fasciculata* F.v.M. ex Benth., etc.), *F. schwarzii* Koord. (*F. miquelii* auct.), *F. gilapong* Miq. (*F. hypogaea* King).

New species:—*F. cynaroides* Corner, *F. lancibracteata* Corner, *F. macrostyla* Corner, *F. parvibracteata* Corner, *F. praestans* Corner, *F. longibracteata* Corner et v. *lebetoides* Corner, *F. baccaureoides* Corner, *F. papuana* Corner, *F. profusa* Corner, *F. sublimbata* Corner, *F. tunicata* Corner, *F. latimarginata* Corner, *F. calcarata* Corner, *F. cereicarpa* Corner, *F. megaleia* Corner, *F. geocharis* Corner, *F. subterranea* Corner, *F. tarennifolia* Corner, *F. ixoroides* Corner, *F. pleyteana* Corner.

New varieties:—*F. dammaropsis* Diels v. *obtusa* Corner; *F. ribes* Reinw. var. *cuneata* (Miq.) Corner et f. *stenophylla* Corner, var. *serraria* (Miq.) Corner; *F. botryocarpa* Miq. var. *linearifolia* (Elmer) Corner, var. *subalbidoramea* (Elmer) et f. *scabrida* Corner; *F. pachyrrachis* Laut. et K. Schum. var. *porrecta* Corner; *F. vrieseana* Miq. var. *vrieseana* f. *appressipilosa* Corner, var. *chamaecarpa* (Ridley) Corner et f. *obliqua* Corner; *F. congesta* Roxb. var. *chalmersii* (King) Corner, var. *menadena* (Miq.)

Corner; *F. hispida* Linn. f. var. *badiostrigosa* Corner, var. *rubra* Corner; *F. lepicarpa* Bl. var. *brevibracteata* Corner, var. *pedunculata* Corner, var. *suluensis* Corner; *F. uncinata* Becc. var. *gracilis* Corner, var. *parva* Corner, var. *pilosior* Corner, var. *strigosa* Corner, var. *truncata* Corner; *F. beccarii* var. *asymmetrica* Corner, var. *latifolia* Corner; *F. septica* Burm. f. var. *cauliflora* Corner, var. *salicifolia* Corner; *F. fistulosa* Reinw. var. *lucbanensis* (Elmer) Corner; *F. dimorpha* Corner v. *scabra* Corner.

subgen Ficus sect. Sycocarpus Miq.

Ann. Sc. Nat. ser. 3, 1 (1844) 33; emend. Miq. Fl. Ind. Bat. I, 2 (1859) 322.—*Gonusuke* Raf. Sylv. Tellur. (1838) 58.—*Sycomorphe* Miq. Ann. Sci. Nat. ser. 3, 1 (1844, January) 35.—*Covellia* Gasp. Parl. Giorn. Bot. 2 (1844) 218; Ann. Sc. Nat. ser. 3, 3 (1845) 347; emend. Miq. Hook. Lond. J. Bot. 7 (1848) 458.—*Cystogyne* Gasp. id. 217, etc.—*Ficus* sect. *Sycomorphe* (Miq.) Endl. et sect. *Cystogyne* (Gasp.) Endl. Gen. Pl. Suppl. 4, 2 (1847) 34, 35.—*Covellia* Gasp. sect. *Cystogyne* (Gasp.) Miq. Hook. Lond. J. Bot. 7 (1848) 468.—*Covellia* Gasp. sect. *Eucovellia* Miq. Fl. Ind. Bat. I, 2 (1859) 322, et sect. *Paracovellia* Miq. id. 325.—*Ficus* subgen. *Covellia* (Gasp.) Miq. sect. *Covellia* (Gasp.) Miq. et sect. *Cystogyne* (Gasp.) Miq. Ann. Mus. Bot. Lugd. Bat. 3 (1867) 296.—*Ficus* sect. *Covellia* (Gasp.) Benth. et Hook. Gen. Pl. 3 (1880) 369; King, Ann. R. Bot. Gard. Calc. 1 (1887) 2, 97.

This section is usually known as *Covellia,* but the names *Sycocarpus, Sycomorphe,* and *Cystogyne* have priority. As first published (1844) *Covellia* had only one species, *C. ulmifolia* Gasp., which, as *F. ulmifolia* Lam., belongs to sect. *Sycidium.* In the next year, Gasparrini added *C. oppositifolia* Gasp., which, as *F. hispida* Linn. f., was used by Miquel (1848) to emend the genus to the customary sense of sect. *Covellia,* but this would now seem to be illegal emendation. *Sycocarpus,* as first published, was a mixture of species now referred to subgen. *Urostigma* and sect. *Sycidium, Ficus, Neomorphe,* and *Covellia,* but Miquel (1859) reduced *Sycocarpus* to the genus *Covellia* Gasp., thereby showing that he considered *C. daemona* Koen. (= *F. hispida* Linn. f.) or *F. congesta* Roxb. as the representative species; the others he had already in 1848 placed in other sections or genera. Miquel (1848), also illegally, as it now appears, reduced *Sycomorphe* (1844) to *Covellia,* though Endlicher (1847) had reduced *Covellia* to *Ficus* sect. *Sycomorphe.* I see no reason to advocate the conservation of the erroneously interpreted sect. *Covellia.*

Gonusuke, Sycomorphe, Covellia emend. Miq., and sect. *Sycocarpus* emend. Miq. are typified by *F. hispida* Linn. f. or its synonyms. *Cystogyne* is typified by *F. septica* Burm. f. (= *F. leucosticta*). Sect. *Paracovellia* is typified by *F. ribes* Reinw. ex Bl.

The chief character of the section, to which the same *Cystogyne* referred, is the entirely gamophyllous perianth. In the male flower the perianth is saccate and covers one or, less often, two stamens. In the gall- and female flowers it is saccate, cupular, and variously reduced to an annulus round the stalk of the ovary, and in a few species it is absent, though the stamens are never naked. The reduction of the perianth in the gall-flower is often much less than in the female flower of the same species.

I divide the section into 5 subsections, 7 series, and 8 subseries. There are about 64 species in tropical Asia and Australasia as far as Fiji, 52 of which occur in Malaysia.

subsect. **Auriculisperma** Corner subsect. nov.—Semina 1.4–2 mm. longa, subcompressa, saepe auriculiformia, hilo non prominenti, obtuse carinata, laevia. Perianthium rubrum v. albidum. Stamina 1 v. 2. Ovarium rubrum v. albidum: stylo glabro. Receptacula basi tribracteata, bracteis lateralibus evolutis v. nullis: setis internis nullis. Folia spiraliter disposita. Solomon Isl. Fiji, 6 spp. Typus:—*F. cynaroides* Corner.

ser. **Cynaroides** Corner ser. nov.—Receptacula sessilia, bracteis basalibus 7–15 mm. longis, apicalibus projicientibus. Stamina 2. Pili brunnei. Stipulae grandes. Cystolitha hypogena. Solomon Isl. 2 spp. Typus:—*F. cynaroides* Corner.

ser. **Theophrastoides** Corner ser. nov.—Receptacula pedunculata, bracteis basalibus 3–9 mm. longis, apicalibus haud projicientibus. Stamen 1. Glabra v. albido-pilosa. Stipulae grandes. Lamina maxima obovata, Cystolitha amphigena v. hypogena. Arbuscula pachycaulis, haud v. vix ramosa, cauliflora. Solomon Isl., Fiji, 1 sp. *F. theophrastoides* Seem.

ser. **Vitienses** Corner ser. nov.—Receptacula pedunculata, bracteis basalibus 1–4 mm. longis, apicalibus haud projicientibus. Stamen 1. Glabra v. albido-pilosa. Stipulae parvae caducae. Cystolitha amphigena. Solomon Isl., Fiji, 3 spp. Typus:—*F. vitiensis* Seem.

subsect. **Dammaropsis** (Warb.) Corner comb. nov.—*Dammaropsis* Warb. Engl. Bot. Jahrb. 13 (1891) 296.—Semina 1.5 mm. longa, breviter oblonga, subcarinata laevia, hilo non prominenti. Perianthium rubrum. Stamina 2, filamentis liberis.

Ovarium albidum. Receptacula maxima axillaria sessilis, bracteis lateralibus magnis obtecta, basalibus haud distinctis, intus processibus floriferis bene evolutis: setis internis nullis. Lamina maxima suborbicularis v. obovata. New Guinea, 1 sp. *F. dammaropsis* Diels.

subsect. **Pomifera** Corner subsect. nov.—Semina 1–1.5 m.m. longa, lentiformia subcompressa, vix carinata, laevia, hilo non v. vix prominenti. Perianthium rubrum. Stamina 2, filamentis liberis v. breviter connatis, vel 1. Ovarium albidum, cecidiophorum et femineum perianthio toto obtecto. Receptacula pedunculata, basi tribracteata: setis internis minutis. v. nullis: cellulis scleroticis nullis (v. paucis, *F. microdictya* Diels). Folia spiraliter disposita. Systolitha hypogena. Terra firma Asiatica et New Guinea, 4 spp. Typus:—*F. oligodon* Miq.

ser. **Pomiferae** Corner ser. nov.—Receptacula axillaria v. cauliflora, saepe magna, bracteis lateralibus nullis. Stamina 2 (–1). Stylus valde lateralis, glabra. Arbores –20 m. altae. 3 spp. Typus: *F. oligodon* Miq.

ser. **Lepidotae** Corner ser. nov.—Receptacula bracteis lateralibus praedita. Stamen 1. Stylus pilosus, subterminalis. Frutex (? arbuscula). Burma, Thailand, 1 sp. *F. griffithii* Miq.

subsect. **Macrostyla** Corner subsect. nov.—Semina 0.9–1.2 mm. longa, sublentiformia, plus minus carinata, laevia, hilo non v. vix prominenti. Perianthium albidum, femineum et cecidiophorum perbreve. Stamen 1. Ovarium fusco-rubrum. Styli feminei longissimi 6–15 mm., receptaculi cavernam implentes, pilis deflexis vestiti ad margines ovarii quoque decurrentibus. Receptacula bracteis lateralibus praedita: setis internis nullis v. brevibus: cellulis scleroticis nullis. Folia lanceolata spiraliter disposita, glandulis nullis. Frutices riparii. Cystolitha hypogena. Sino-Himalaya, Sarawak, 2 spp. Typus:—*F. macrostyla* Corner.

subsect. **Sycocarpus.**—*Ficus* sect. *Covellia* (Gasp.) Miq. subsect. *Communiflorae* Sata, Monogr. (1944) 293, 382 (ut Communisiiflorae; lectotype *F. repandifolia* Elmer).—sect. *Pseudopalma* Elmer subsect. *Covelliae-pseudopalmae* Sata, Monogr. (1944) 320, 384 (lectotypus, *F. multistipularis* Merr.).—Semina 0.6–1.3 mm. longa, sublentiformia, plus minus carinata, laevia, aspera v. tuberculata, hilo prominenti (praeter *F. francisci* Winkl.) Perianthium albidum, tenuissimum. Stamen 1 (–2 in *F. calopilina* Diels). *Ovarium* fusco-rubrum (albidum in *F. gilapong*): stylo haud elongato, subterminali. Spp. 51. Typus:—*F. hispida* Linn. f.

ser. **Longetuberculatae** Sata, Monogr. (1944) 294, 382.—*Covellia* Gasp. sect. *Paracovellia* Miq. et subgen. *Covellia* (Gasp.) Miq. sect. *Paracovellia* Miq. l.c.—Cystolitha amphigena. Malaya usque ad New Britain (praeter Borneo ubi adhuc nondum collectae), 4 spp. Typus:—*F. ribes* Reinw. ex Bl.

ser. **Tuberculifasciculatae** Sata, Monogr. (1944) 298, 383.—sect. *Sycidium* ser. *Harlandifoliae* Sata id. 253, 255, 380 (lectotypus, *F. benguetensis* Merr.), et ser. *Eusyceifoliae* Sata, id. 257, 381 (lectotypus, *F. hauili* Blanco).—Cystolitha hypogena. Pakistan, Ceylon, usque ad ins. Solomon et Queensland, 46 spp. Typus:—*F. repandifolia* Elmer (*F. fistulosa* Reinw. ex Bl.).

subser. **Praestantes** Corner subser. nov.—Pili brunnei. Folia longipetiolata spiraliter disposita. Receptacula cauliflora, bracteis lateralibus magnis obtecta: setis internis nullis. New Britain, Solomon Isl., 2 spp. Typus:—*F. praestans* Corner.

subser. **Calopilinae** Corner subser. nov.—Pili brunnei v. purpurei. Folia plerumque brevipetiolata, spiraliter disposita, disticha, v. opposita. Receptacula cauliflora v. geocarpica, bracteis lateralibus raris: setis internis copiosis. Malaya usque ad ins. Solomon (praeter ins. Philippine), 12 spp. Typus:—*F. calopilina* Diels.

subser. **Congestae** Corner subser. nov.—sect. *Sycidium* Miq. ser. *Harlandifoliae* Sata et sect. *Pseudopalmae* Elmer subsect. *Covelliae-pseudopalmae* Sata, l.c.—Glabra vel albido- v. brunneo-pilosa. Folia plus minus brevipetiolata, spiraliter disposita v. subopposita. Receptacula cauliflora, bracteis lateralibus nullis: setis internis paucis v. nullis. Malaya usque ad New Guinea, 6 spp. Typus:—*F. congesta* Roxb.

subser. **Hispidae** Corner subser. nov.—Pili brunnei v. albidi. Folia spiraliter disposita, plerumque opposita et scabrida. Receptacula cauliflora, plerumque in racemis ramosis elongatis pendentibus, v. geocarpia, saepe bracteis lateralibus parvis praedita: setis internis nullis. Pakistan, Ceylon usque ad New Guinea et Queensland (praeter ins. Philippine), 2 spp. Typus:—*F. hispida* Linn. f.

subser. **Axillares** Corner subser. nov.—Pili albidi, brunnei, v. purpurei, etiam glabrae. Folia plerumque brevipetiolata, spiraliter disposita v. subopposita, in speciebus nonnullis pandurata grossedentata. Receptacula axillaria, saepe bracteis lateralibus parvis praedita: bracteis basalibus conspicuis 4–16 mm. longis: setis internis paucis minutis v. nullis. Burma usque ad New Guinea, 5 spp. Typus:—*F. decipiens* Reinw. ex Bl.

subser. **Fulvidulae** Corner subser. nov.—Pili fulviduli pallidi tomentosi molles. Folia longipetiolata spiraliter disposita. Receptacula ad basim trunci cauliflora v. geocarpica, bracteis lateralibus numerosis, paucis v. nullis: setis internis plerumque copiosis. Sumatra, Borneo, 3 spp. Typus:—*F. cereicarpa* Corner.

subser. **Geocarpicae** Corner subser. nov.—Pili albidi v. brunnei. Folia brevipetiolata, saepe asymmetrica, disticha. Receptacula geocarpica ad ramulos stoloniferos, plerumque bracteis lateralibus conspicuis praedita: setis internis nullis (praeter *F. treubii* King). Perianthium saepe perbreve v. in floribus femineis nullum. Malaya, Lingga, Borneo, Celebes, 8 spp. Typus:—*F. geocarpa* Miq.

subser. **Tuberculifasciculatae.**—sect. *Sycidium* ser. *Euscyceifoliae* Sata l.c.—Glabrae v. pilis albidis v. brunneis appressis tenue vestitae. Folia longi—v. brevipetiolata spiraliter disposita, opposita, v. disticha, saepe angusta: intercostis saepe paucis laxis. Receptacula axillaria, cauliflora v. geocarpica, bracteis lateralibus nullis: bracteis basalibus brevibus: setis internis paucis v. nullis. India usque ad ins. Solomon, 9 spp. Typus:—*F. repandifolia* Elmer (*F. fistulosa* Reinw. ex Bl.).—Species reliquae propriis insignibus nullis.

subsect. Auriculisperma Corner ser. Cynaroides Corner

F. cynaroides Corner sp. nov.—Arbor –10 m. alta. Folia longipetiolata spiraliter disposita, conferta. Ramuli, petioli, et costa media (supra) pilis rigidis 2–6 mm. longis brunneo-purpureis strigosi, receptacula brevioribus 1–2 mm. longis; nervi subtus minute et dense puberuli. Ramuli 10–12 mm. crassi. Stipulae 7–12 cm. × 20–25 mm., longissimae, persistentes, imbricatae, alabastrum et receptacula obtegentes, dense pallide sericeae. Lamina 20–40 × 10–23 cm., elliptica subovata v. subobovata, breviter acuminata, basi later cuneata, integra, tenue coriacea, laevis v. subtus subscabrida, sicco brunnea: costis lateralibus utrinsecus 9–13 (–14), intercostis 10–22 strictis, subtus leviter elevatis: costis basalibus utrinsecus 3, ad $\frac{1}{3}$ laminae elongatis, glandulis basalibus 2: petiolo 20–120 × 4–5 mm., glandula subnodali nulla. Receptacula axillaria stipulis obtecta binata sessilia compressa hispida: bracteis basalibus 3–4, 7–15 × 2–3.5 mm., lanceolatis, appresse brunneo-pilosis: corpore receptaculi 16–23 mm. lata (22 × 26 mm. vivo), depresso-globoso, bracteis lateralibus nullis, bracteis 6–8 apicalibus 4–6 mm. longis erectis v. incurvis, pilosis, ovato-lanceolatis: setis internis

et cellulis scleroticis nullis. Flores masculi ordinibus duobus instructi, perianthio saccato: staminibus 2, antheris mucronatis, filamentis liberis. Flores cecidiophori et feminei sessiles v. stipitaiti: perianthio cupulari integro, saepe obliquo, $\frac{1}{4}$–$\frac{2}{3}$ ovarii fusco-rubri tegenti v. feminei breviori: stylo glabro. Semina 1.4–1.6 × 1 × 0.8 mm., auriculiformia laevia, hilo non prominenti. Cystolitha hypogena. Solomon Isl. (Bougainville), in silvis frequens.

Species distinctissima *F. lancibracteatae* Corner affinis. Ramuli, ut videtur, capitulis cynaroidibus terminati.

Kajewski 1856 (*typus,* herb. Kew); J. H. L. Waterhouse 202, B265, 578, 845.

F. lancibracteata Corner sp. nov.—Arbor –12 m. alta, foliis longipetiolatis spiraliter dispositis (? suboppositis). Ramuli, petioli, laminae margines, et costae (subtus) pilis brunneo-purpureis rigidis strigoso-hispidi, pilis ad ramulos petiolosque 3–7 mm. longis, ad costas subtus 1–2 mm. longis: nervuli pallide puberuli: lamina supra appresse pallido-pilosa. Ramuli 4 mm. crassi. Stipulae 20–30 mm. longae, caducae, glabrae v. ad basim setosae. Lamina 10–15 × 6–9 cm., elliptica, apice acuminata –10 mm. longo, basi cuneata v. rotundato-cuneata, denticulata v. subintegra, membranacea, laevis, sicco brunnea: costis lateralibus utrinsecus 7–8, intercostis strictis –9, subtus elevatis: costis basalibus utrinsecus 2, ad ½ laminae elongatis, glandulis basalibus nullis: petiolo 18–75 × 2 mm., glandula subnodali nulla. Receptacula axillaria sessilia, 15 mm. lata, glabra v. primo tenue brunneo-pilosa, bracteis lateralibus lanceolatis glabris numerosis –12 mm. longis praedita, bracteis apicalibus confertis erectis: setis internis et cellulis scleroticis nullis. Flores feminei sessiles v. breviter pedicellati: periantho cupulari brevissimo stipitem ovarii fusco-rubri amplectanti: stylo laterali glabro. Semina 1.4–1.5 × 0.6 mm., auriculiformia compressa, obtuse carinata, laevia, hilo non prominenti. Cystolitha hypogena. Solomon Isl. (Bougainville.)

Receptacula ut in *F. macrostyla* Corner et *F. longibracteata* Corner, sed semina diversa. Semel collecta sed "in silvis frequens" notata.

Kajewski 2032 (Buin, *typus* herb. Kew).

subsect. Dammaropsis (Warb.) Corner

F. dammaropsis Diels var. **obtusa** Corner v. nov.—Receptacula 8–13 cm. lata (bracteis exclusis): bracteis lateralibus –35 × 70 mm., fere semicircularibus, obtusissimis: pariete 4–6 mm. crassi, prope ostiolum 10–12 mm. Terr. New Guinea, Papua.

Brass 23340 (Milne Bay District, Mt. Dayman); Carr 13942 (Yodda River, *typus* herb. Br. Mus.); Hoogland 6138 (Mt. Hagen); NGF 1113 et 3396 (Aujura), 3047 (Partep), 7501 (Morobe, Bulolo Valley).

subsect. Pomifera Corner

F. oligodon Miq. Ann. Mus. Bot. Lugd. Bat. 3 (1867) 234, 297.—*F. pomifera* Wall. ex King, Ann. R. Bot. Gard. Calc. 1, 2 (1888) 171, p. 215, non Kurz: Corner, J. Mal. Br. R. As. Soc., 11 (1933) 46, f. 24.

subsect. Macrostyla Corner

F. squamosa Roxb. Fl. Ind. 3 (1832) 531.—*F. saemocarpa* Miq. Ann. Mus. Bot. Lugd. Bat. 3 (1867) 232, 296.—There is a specimen of Roxburgh's in herb. Martii, Brussels, named "F. squamosa" by Roxburgh, which I take to be the type.

F. macrostyla Corner sp. nov.—Frutex, foliis brevipetiolatis spiraliter dipsositis. Ramuli, petioli, et stipulae pilis fusco-brunneis appressis 0.5–1 mm. longis dense vestiti, costa utrimque pilis sparsis brevioribus glabrescens: nervuli glabri. Ramuli 3 mm. crassi, fusco-brunnei. Stipulae –15 mm. longae, anguste lanceolatae, persistentes. Lamina 9–18 × 2.5–4 cm., obovato-lanceolata, acuta, ad basim angustum attenuata, integra, laevis, sicco griseo-viridis v. brunneola: costis lateralibus utrinsecus 8–11, obliquis, intercostis –8, subtus haud v. vix elevatis: costis basalibus utrinsecus 1, brevibus, glandulis nullis: petiolo 12–35 × 2–2.5 mm. Receptacula axillaria (? ramiflora), ? solitaria, 25 × 20 mm. (bracteis inclusis), bracteis lanceolatis rectis planis numerosis appresse brunneo-pilosis –17 × 6 mm., toto obtecta, basim versus bracteis brevioribus –6 × 3 mm., ad pedunculum (?) 1–2 mm. longum attenuata, bracteis basalibus ternatis deficientibus, ostiolo ?; setis internis paucis brunneis: cellulis scleroticis nullis. Flores feminei subsessiles: perianthio cupulari brevissimo hispiduloso: ovario plus minus stipitato, brunneo, marginibus utrisque pilis deflexis hispidis: stylo 12–15 mm. longo, pilis deflexis puberulis, apicem versus pilis confertis patentibus. Semina 1 × 0.6 mm., subcompressa, lentiformia carinata laevia, hilo non prominenti. Cystolitha hypogena. Sarawak (Saribas, riparia, Haviland 3601, *typus* herb. Kew).

Species insignis, specimine unico, *F. squamosae* Roxb. affinis sed in omnibus partibus diversa.

subsect. Sycocarpus ser. Longetuberculatae Sata

F. ribes Reinw. ex Bl. var. **cuneata** (Miq.) Corner comb. nov.—*Covellia cuneata* Miq. Hook. Lond. J. Bot. 7 (1848) 466, t. 8B.—*F. cuneata* Miq. Ann. Mus. Bot. Lugd. Bat. 3 (1867) 297.

f. **stenophylla** Corner f. nov.—Elmer, Leafl. Philip. Bot. 9 (1937) 3436 (ut *F. linearifolia* Elmer).—Lamina 5–15 × 0.8–2.4 cm., lineari-lanceolata. Philippines.

Elmer 14514 (*typus* herb. Copenhagen), 14949, 17726; Bur. Sci. 24872; PNH 37136; Sablaya 57.

var. **serraria** (Miq.) Corner comb. nov.—*F. serraria* Miq. Fl. Ind. Bat. Suppl. (1860) 428.—Ramuli, petioli, et costae (subtus) pilis rigidis erectis fusco-brunneis 1–3 mm. longis strigoso-villosi, nervuli subtus sparsim appresse albido-puberuli, laminae pagina superior pilis albidis appressis sparsa. Lamina serrato-dentata v. subintegra. Stylus femineus glaber. Sumatra.

Ut *F. vrieseana* Miq. villosior, sed cystolithis amphigenis copiosis ut *F. ribes*.

Teysmann 738 (Batang Baroes, *typus* herb. Utrecht); Achmad 86 (Simaloer); Bangham 748, 952 (Siantar-Berastagi; det. *F. obscura* Bl.); Bartlett 10403, 10608 (Toba); Bunnemeyer 655, 10332 (Koerintje); Lorzing 1701, 6797, 9715 (Karoland), 8857, 8862 (Toba); Nielsen 1252 (Pintan); NIFS bb. 7161: Sing. F.n. 16302 (Berastagi); v. Steenis 5924.

F. botryocarpa Miq. v. **linearifolia** (Elmer) Corner com. nov.—*F. linearifolia* Elmer, Leafl. Philip. Bot. 1 (1907) 257:—*F. cervina* Elmer, id. 2 (1908) 543.—This is merely a lanceolate, willow-leafed variety or form of *F. botryocarpa*.

Elmer 7428 (*type*), 7604, 9364, 10179 (type, *F. cervina*); Baker 2633; Bur. Sci. 2633, 22104, 33874, 76439; PNH 18286.

var. **subalbidoramea** (Elmer) Corner comb. nov.—*F. mindorensis* Merr. Govt. Lab. Publ. (Philip.) 17 (1904) 12.—*F. sordidissima* Elmer, Leafl. Philip. Bot. 4 (1911) 1268.—*F. subalbidoramea* Elmer, id. 7 (1914) 2389.—This is the state with short, pale, appressed hairs which is commonly, but erroneously, called *F. conora* King. The type of this species must be the collection of Beccari s.n. (Acqui Conora, Ternate), which is typical *F. botryocarpa* with dark brown spreading hairs.

f. **scabrida** Corner f. nov.—Lamina subtus scabrida. Pili erecti hispido-villosi albidi v. brunneoli –1 mm. longi. New Guinea, New Britain.

Barclay 3561 (New Guinea); Beccari 388 (New Guinea, Ramoi); L. S. Gibbs 6172 (Manokwari, det. *F. brachiata* King); Kanehira et Hatusima 13430 (Manokwari); Kostermans 449 (Manokwari, *typus* herb. Leiden); Lauterbach 2548; NGF 3493 (New Britain), 4310 (Morobe); J. C. Saunders 41 (Terr. New Guinea, Northern District).

F. parvibracteata Corner sp. nov.—Arbor –10 m. alta, foliis longiuscule petiolatis spiraliter disposita. Ramuli, petioli, costae nervulique subtus, stipulae, et receptacula pilis albidis appressis tenue vestiti. Ramuli 3 mm. crassi, pallide cremei. Stipulae –15 mm. longae, caducae. Lamina –20 × 7 cm., anguste elliptica, apice abrupte acuminata v. caudata –10 mm. longo, basi anguste cuneata, integra, membranacea, utrimque subscabrida, sicco griseo-virids: costis lateralibus utrinsecus 6–7, obliquis, intercostis –9, subtus elevatis: costis basalibus 1, brevibus, glandulis nullis: petiolo –50 mm., gracili. Receptacula ad ramulos efoliatos laxe paniculatos –25 cm. longos, basi 4–5 mm. crassos, internodis –15 mm. longis, cauliflora: pedunculo 3–5 mm. longo: bracteis basalibus 3, 3–5 × 2.5–4 mm., ovato-acutis: pedicello 0; corpore receptaculi 10–12 mm. lato, subgloboso, bracteis lateralibus nonnullis appressis praedito, apicalibus 5 appressis: setis internis –1 mm. longis, brunneis, copiosis: cellulis scleroticis in strato parietis interno copiosis. Flores masculi ordine uno instructi: stamen 1. Flores cecidiophori perianthio ovarium rufo-brunneum obtegenti. Cystolitha amphigena. Celebes (Kjellberg 2640, B. Porema, 1,500 m. alt.; *typus,* herb. Stockholm).

Receptacula ut *F. ribes* sed bracteis lateralibus praedita, basalibus majoribus. Folia spiraliter instructa et longiuscule petiolata ut *F. cassidyana.* Elmer.

ser. Tuberculifasciculatae Sata subser. Praestantes Corner

F. praestans Corner sp. nov.—Arbor –13 m. alta, foliis longipetiolatis spiraliter dispositis. Ramuli, petioli, stipulae, costae (subtus) pilis appressis aureo- v. fusco-brunneis rigidis 1–2 mm. longis dense vestiti, nervuli subtus pilis brevioribus albidis. Ramuli 7–12 mm. crassi, brunnei, glabrescentes. Stipulae 20–60 × 12–25 mm., late lanceolatae, persistentes. Lamina –48 × 28 cm., elliptico-obovata, apice acuminata –15 mm. longo, ad basim subcordatum v. cuneatum attenuata v. sublyrata, denticulata v. subintegra, membranacea, supra sparsim appresse albido-pilosa, subtus subscabrida, sicco brunneola: costis

lateralibus utrinsecus 10–12, intercostis strictis –13, subtus elevatis; costis basalibus utrinsecus 3–4, brevibus, glandulis nullis: petiolo 30–110 × 4–5 mm. Receptacula ad ramos efoliatos crassos, vix ramosos, –40 cm. × 10–22 mm., internodis haud evolutis, receptaculorum cicatricibus armatos, apice stipulatos, cauliflora: pedunculo 8–12 × 3 mm.; corpore receptaculi 25 mm. lato, depresso-globoso, mox glabro, bracteis lateralibus numerosis ut stipulas toto obtecto, apicem versus bracteis minoribus, basim versus subverticillatis: setis internis minutis sparsis brunneolis: cellulis scleroticis in strato parietis interno copiosis. Flores masculi ordine uno instructi, breviter pedicellati, bracteolis 2: stamen 1. Flores cecidiophori pedicellati: perianthio ovarium tegenti. Cystolitha hypogena. New Britain (Keravat, NGF 3407, *typus* herb. Lae).

Seminibus incognitis species magnifica sedis incertae, forsan *F. longibracteatae* Corner affinis, sed receptaculis debracteatis *F. pachyrhachis* K. Schum. verisimilis.

F. longibracteata Corner sp. nov.—Arbor –15 m. alta, foliis longipetiolatis spiraliter dispositis. Stipulae, petioli, et costae (subtus) pilis albidis v. brunneis –1 (–1.5) mm. longis appressis tenue vestiti, nervuli subtus pilis brevioribus. Ramuli 5–7 mm. crassi, brunnei, glabri v. nodis sparsim pilosi. Stipulae 20–95 × 12–22 mm., grandes, late lanceolatae, subcaducae. Lamina 17–33 × 11–25 cm., elliptica, breviter et obtusiuscule acuminata, basi cordata v. rotundato-cuneata, integra, membranacea, laevis, sicco fusco-brunnea: costis lateralibus utrinsecus 6–10, saepe glandula axillari praeditis, intercostis –12, subtus elevatis; costis basalibus utrinsecus 3–4, ad ¼–½ laminae elongatis, glandulis basalibus nullis: petiolo 40–110 × 3–4 mm., glandula subnodali praedito. Receptacula axillaria solitaria et ad ramulos efoliatos stipulatos –35 cm. longos, 5 mm. latos, internodis 2–4 cm. longis, cauliflora (? geocarpica): pedunculo 3–13 × 2 mm.; bracteis basalibus 20–30 × 11–15 mm., late lanceolatis, appresse brunneo-pilosis, haud in collare instructis: corpore receptaculi 15–22 mm. lato (30–45 mm., vivo, pariete 5–7 mm. crasso), subgloboso, bracteis lateralibus numerosis lanceolatis –25 × 15 mm., apicem versus minoribus, obtecto: setis internis albidis, brevibus, sparsis: cellulis scleroticis nullis v. in strato parieties rec. fem. interno sparsis. Flores masculi ordinibus 3–4 instructi: stamen 1. Flores cecidiophori longipedicellati: perianthio ovarium ad basim stigmatis tegenti. Flores feminei plus minus pedicellati: perianthio cupulari breve ad basim stipitis ovarii rufo-brunnei: stylo piloso. Semina 1–1.3 × 0.8 × 0.7

mm., sublentiformia, leviter carinata, subtuberculata, aspera, hilo prominenti. Cystolitha hypogena. Solomon Isl. (Bougainville, Guadalcanal, Florida), in silvis primariis et secundariis frequens.

Species insignis, *F. complexae* Corner (sect. *Sycidium*) similis. Brass 3492 (*typus,* herb. Leiden); E. S. Brown 2705, W/17, W/199; Kajewski 1864.

var. **lebetoides** Corner v. nov.—Stipulae breviores, – 35 mm. longae. Costae laterales utrinsecus pauciores 4–7. Bracteae basales minores 7–10 × 3–6 mm. Receptacula 14–18 mm. lata, depresso-globosa, bracteis lateralibus 5–8 mm. longis sparsis, apicalibus 3–6 mm. longis erectis: setis internis nullis. Solomon Isl. (Guadalcanal, Kajewski 2642, Mt. Tutuve, *typus* herb. Kew).

ser. Tuberculifasciculatae Sata subser. Calopilinae Corner

F. pachyrrhachis Laut. et K. Schum. Fl. Deutsch. Schutzgeb. Suds. (1901) 282.—*F. grandis* King, Ann. R. Bot. Gard. Calc. 1, 2 (1888) 170, pl. 214; non Miq. Ann. Mus. Bot. Lugd. Bat 3 (1867) 315.—*F. pachythyrsa* Diels, Engl. Bot. Jahrb. 67 (1935) 215.—I have examined the types of these species, which are certainly conspecific. Unfortunately King's name is a later homonym.

var. **porrecta** Corner v. nov.—Receptacula ostiolo non depresso, bracteis apicalibus lanceolatis rectis 3–5 mm. longis nonnullis: bracteis lateralibus paucis similibus. Ramuli, stipulae, et folia pilis rigidis appressis. Netherlands New Guinea (Mendawa, BW 682, *typus* herb. Leiden).

F. longibracteatae Corner v. *lebetoidis* Corner similis sed costis lateralibus paucioribus, setis internis copiosis.

F. baccaureoides Corner sp. nov.—Arbor – 6m. alta, foliis longiuscule petiolatis spiraliter dispositis. Ramuli, petioli, et costae (subtus) pilis albidis v. brunneis 2–4 mm. longis erectis v. decurvatis hispidi, ad costas 1–2 mm. longis: nervuli subtus breviter hispiduli: laminae pagina superior pilis albidis rigidis sparsim hispido-scabrida. Ramuli 4–5 mm. crassi, ? cavi. Stipulae 15–30 mm. longae, glabrae, caducae. Lamina 14–30 11–17 cm., obovata, apice breviter acuminata –7 mm. longo, basi cordata v. rotundato-cuneata, denticulata v. subintegra, membranacea, utrimque hispido-scabrida, sicco fusco-brunnea: costis lateralibus utrinsecus 7–10, marginem versus dichotomis et glandula axillari ad furcam praeditis, intercostis –12, subtus

elevatis: costis basalibus utrinsecus 4–5, brevibus, glandulis nullis: petiolo 15–55 × 2.5–3 mm., glandula subnodali exigua praedito. Receptacula ad ramulos efoliatos stipulatos –1 m. longos, 3–4 mm. crassos, aliquando apicibus foliosis, cauliflora, albido-hispidula dein glabra: pedunculo 11–25 × 1.5 mm.: bracteis basalibus 3, 1.5–3 mm. longis, ovato-subacutis, caducis: corpore receptaculi 13–16 mm. lato (21 × 22 mm., vivo), depresso-globoso, aliquando brevipedicellato bracteis lateralibus nullis, ostiolo bracteis apicalibus 5 umbonatis glabris occluso: setis internis 0.5–1 mm. longis, brunneolis, vix numerosis: cellulis scleroticis in strato parietis interno copiosis. Flores feminei subsessiles v. pedicellati: perianthio brevi tubulari usque ad basim ovarii fusco-rubri extenso: stylo glabro. Semina 1 × 0.6 mm., sublentiformia carinata laevia, hilo prominenti. Cystolitha hypogena, v. etiam paucis hypergena. Solomon Isl. (Bougainville).

Forsan *F. bougainvillei* Rechinger affinis, sed cauliflora pedunculis receptaculi longioribus, bracteis basalibus caducis inter alia differt.

Kajewski 1927 (Buin, typus herb. Kew); J. H. L. Waterhouse 7, 208, B208.

F. profusa Corner sp. nov.—Arbor –15 m. alta, foliis longepetiolaris spiraliter dispositis. Ramuli, stipulae, petioli, nervi utrimque, et receptacula juvenia pilis appressis brunneis 1–1.5 mm. longis densiuscule vestitis, nervuli pilis brevioribus suberectis sparsi: laminae pagina superior pilis albidis appressis scabrida. Ramuli 3–4 mm. crassi, brunnei. Stipulae –25 mm. longae, caducae. Lamina –25 × 15 cm., ovata v. elliptica, breviter subacuminata, basi rotundato-subcordata v. anguste rotundata, membranacea, ciliato-denticulata, utrimque scabrida, sicco fusco-viridis: costis lateralibus utrinsecus 6–8, plerumque glandula axillari praeditis et saepe glandula ad furcas marginem laminae versus, intercostis 5–9 sublaxis, subtus vix elevatis: costis basalibus utrinsecus 3–4, ad ⅓ laminae elongatis, glandulis basalibus 2: petiolo 30–120 mm. longo, glabrescenti, glandula subnodali praedito. Receptacula ad basim trunci profusa (? ad ramulos stoloniformes), glabrescentia, maturitate luteo-viridia: pedunculo 4–8 mm. longo: bracteis basalibus 3, 4 mm. longis, lanceolato-ellipticis, non caducis: corpore receptaculi 15 mm. lato (25 × 30 mm., vivo), depresso-subgloboso, bracteis lateralibus nullis, apicem versus subcostato, ostiolo primo bracteis 5 apicalibus umbonatis appressis occluso dein internis minoribus numerosis insertis: setis internis brunneis

nonnullis: cellulis scleroticis in rec. fem. nullis. Flores feminei sessiles v. breviter pedicellati: perianthio brevissimo ut collare ad basim ovarii rufo-brunnei; stylo dense piloso. Semina 0.8–1 mm. longa, subcarinata, subtuberculata, hilo prominenti. Cystolitha hypogena: pili papillati. Solomon Isl., Bougainville (Kupei Gold Field, Kajewski 1743, *typus* herb. Kew).

F. d'Albertisii King affinis sed receptaculis a diligentissimo Kajewski notata "on the roots of the tree in great profusion", haud ad ramulos spiciformes cauliflora, bracteis basalibus apicalibusque majoribus inter alia differt. Melius species nova solomonensis describenda quam ad novoguineenses referenda.

F. papuana Corner sp. nov.—Summerhayes, J. Arn. Arb. 22 (1941) 99, ut *F. setistyla* Warb.—Arbor –13 m. alta, foliis brevipetiolatis distichis v. oppositis. Ramuli, petioli, et costae (subtus) pilis brunneolis erectis 1–2 mm. longis hispido-villosi: nervuli subtus pilis albidis brevioribus: laminae pagina superior pilis appressis albidis sparsa. Ramuli 3–4 mm. crassi, cavi. Stipulae –20 mm. longae, appresse pilosae, caducae. Lamina 20–38 × 10–17 cm., oblongo-elliptica, ad apicem subacuminatum –20 mm. longum attenuata, basi asymmetrica uno latere caudato-auriculata altero anguste subcordata, denticulata, membranacea, supra scabridula, subtus velutinosa, sicco brunnea: costis lateralibus utrinsecus (7–) 9–12, marginem versus furcatis, subtus valde elevatis, intercostis –8, subtus elevatis: costis basalibus 3 + 5, brevibus: petiolo 10–15 mm. longo, saepe laminae auricula obtecto, glandula subnodali praedito. Receptacula ad ramulos efoliatos crassos breves cauliflora, hispidula dein glabra: pedunculo 10–35 mm. longo: bracteis basalibus 3, 2–4 mm. longis, ovato-subacutis: corpore receptaculi 20–30 mm. lato (–45 mm., vivo), pyriformi, bracteis lateralibus nullis, ostiolo subdepresso bracteis apicalibus nonnullis confertis occluso: setis internis albidis, sparsis v. copiosis: cellulis scleroticis nullis. Flores masculi ordinibus 2–3 instructi, pedicellati: stamen 1. Flores cecidiophori sessiles v. pedicello –3.5 mm. longo praediti: perianthio ovarium rufo-brunneum tegenti. Flores feminei sessiles v. pedicello –1.5 mm. longo praediti: perianthio brevissimo: ovario rufo-brunneo sessili v. stipitato: stylo dense piloso. Semina subtuberculata, hilo prominenti. Cystolitha hypogena. Papua, Terr. New Guinea.

F. calopilinae Diels affinis et forsan varietas, sed foliis distichis, lamina oblonga, basi valde asymmetrica, brevipetiolata, costis pluribus, basalibus brevibus, et indumento molli differt.

Brass 1159 (Vailala River, Upoia), 5605 (Central Division, Kubuna), 5967 (Western Division, Oriomo River), 6440 (Western Division, Daru Isl., *typus* herb. Kew), 7740 (Middle Fly River, Lake Daviambu); Carr 11640 (Veiya).

F. vrieseana Miq. var. **vrieseana** f. **appressipilosa** Corner f. nov.—*F. brachiata* King, Ann. R. Bot. Gard. Calc. 1, 2 (1888) 106, pl. 136.—Pili—1 mm. longi, appressi, breviores. Java, Sumatra. Koorders 9087, 21916 (*typus,* herb. Leiden), 24633, prov. Banjoemas, Java; Meijer 4268 (Sumatra, Indragiri): Forbes 1605, 2313 (typus, *F. brachiata* King), Sumatra.

var. **chamaecarpa** (Ridley) Corner comb. nov.—*F. chamaecarpa* Ridley, Kew Bull. (1926) 82; Corner, J. Mal. Br. R. As. Soc. 11 (1933) 22, f. 10, 11.—Appressipilosa. Lamina basi plus minus valde asymmetrica, uno latere cordato-auriculata. Setae internae paucae. Perianthium cecidiophorum breve. Malaya, Sumatra.

f. **obliqua** Corner f. nov.—Pili erecti. Lamina basi minus asymmetrica. Malaya, Sumatra, New Guinea.

Malaya:—Corner s.n. (Johore, G. Panti, 10.3.35); Hume 9544 (Ginting Simpah); Ridley 2588 (Tahan River); Sing. F.n. 26031 (Negri Sembilan, Bt. Tangga, *typus* herb. Singapore); Sumatra:—v. Steenis 3465 (Palembang, Ranau-meer). New Guinea:—Kostermans 2620 (Manokwari).

F. sublimbata Corner sp. nov.—Arbor foliis brevipetiolatis spiraliter dispositis v. decussatis. Ramuli, petioli, et costa media (subtus) pilis albidis v. brunneolis rectis appressis –1 mm. longis vestiti: nervuli pilis plus minus patentibus: laminae pagina superior pilis appressis sparsa. Ramuli 2.5–3 mm. crassi. Stipulae –15 mm. longae, ovato-lanceolatae, acuminatae, ad carinam pilosae, subpersistentes. Lamina 10–15 × 4–8 cm., elliptica, breviter acuminata, basi rotundata v. cuneata, symmetrica, subdentata, denticulata v. subintegra, subcoriacea, laevis, sicco brunnea: costis lateralibus utrinsceus 4, intercostis 4–7, subtus elevatis: costis basalibus utrinsecus 2–3, ad $\frac{1}{3}$–$\frac{1}{2}$ laminae elongatis: petiolo 10–25 mm., glandula subnodali praedito. Receptacula ad ramulos efoliatos stipulatos –35 cm. longos, 5–6 mm. crassos, internodis 5–15 mm. longis, cauliflora: pedunculo 12–15 mm. longo: bracteis basalibus 3, 3–4 mm. longis, lanceolatis, crassis, glabris: corpore receptaculi 25 mm. lato, subgloboso, pilis brunneolis sparsim vestito dein glabro, bracteis lateralibus nullis, ostiolo plano bracteis apicalibus

numerosis occluso: setis internis –1 mm. longis, brunneolis, copiosis: cellulis scleroticis in strato parietis rec. cecid. interno copiosis. Flores masculi ordinibus duobus instructi: stamen 1. Flores cecidiophori pedicellati: perianthio ad $\frac{1}{4}$–$\frac{1}{3}$ ovarii rufo-brunnei cupulato. Cystolitha hypogena. New Guinea (Wissel Lake, Eyma 4770, *typus* herb. Leiden).

F. calopilinae Diels, *F. ternatanae* Miq., et *F. tunicatae* affinis, sed costis lateralibus paucis, basalibus elongatis, receptaculis majusculis. Inquirenda.

F. tunicata Corner sp. nov.—Arbor foliis breviuscule petiolatis spiraliter dispositis. Ramuli et petioli pilis patentibus v. appressis brunneis –1 mm. longis sparsim vestiti: costae subtus appresse pilosae: laminae pagina superior pilis appressis sparsa. Ramuli 3–4 mm. crassi. Stipulae –15 mm. longae, lanceolatae, appresse brunneo-pilosae. Lamina –23 × 12 cm., ovata, subacuminata, breviter cordata, subdenticulata, membranacea, supra subscabrida, sicco brunneola: costis lateralibus utrinsecus 5–7, intercostis –11, subtus elevatis: costis basalibus utrinsecus 2–3, ad $\frac{1}{3}$ laminae elongatis, glandulis nullis: petiolo 20–35 mm. longo. Receptacula ad ramulos efoliatos –5 cm. longos cauliflora: pedunculo 2–3 mm. longo: bracteis basalibus 3, 1.5 mm. longis, subacutis: corpore receptaculi 10 mm. lato (immaturo), subgloboso glabro, bracteis lateralibus nullis, ostiolo plano bracteis apicalibus 5 parvis occluso: setis internis copiosis brevibus brunneis: cellulis scleroticis in strato parietis interno copiosis. Flores masculi ordine uno instructi: stamen 1. Flores cecidiophori sessiles v. stipitati: perianthio ovarium usque ad basim styli tegenti. Cystolitha hypogena. Great Key Isl. (H. Jensen 121, *typus* herb. Copenhagen).

Aspectus *F. variegatae* Bl., vero *F. ternatanae* Miq. et *F. sublimbatae* Corner affinis.

ser. Tuberculifasciculatae Sata subser. Congestae Corner

F. congesta Roxb. Fl. Ind. 3 (1832) 560; Wight, Ic. t. 644; Miq. Ann. Mus. Bot. Lugd. Bat. 3 (1867) 296; King, Ann. R. Bot. Gard. Calc. 1, 2 (1888) 180.—*F. fasciculata* F. Muell. ex Benth. Fl. Austral. 6 (1873) 177, et v. *opposita*. Benth.—*F. setistyla* Warb. Fedde's Rep. 1 (1905) 77.—*F. trichostyla* Warb. id.—*F. satterthwaitei* Elmer, Leafl. Philip. Bot. 1 (1906) 199.—*F. appendiculata* Merr. Philip. J. Sci. 18 (1921) 57.—*F. binuangensis* Merr. id. 67.—Miquel and King regarded this as an uncertain species, but there is now abundant material to show

that it is one of the important, common, and variable species of central and eastern Malaysia. Because of this variability, which requires field-study, the species is difficult to assess. Six old specimens prove its identity. Wallich 4510 represents *F. congesta* as cultivated in the Calcutta Botanic Gardens, presumably being the plants raised by Roxburgh from Amboina. B. Hamilton 2427, at Edinburgh, is named "F. congesta Hort. Beng. 66". In herb. Martii, Brussels, there are four sheets of Roxburgh's which are identical, but none is named *F. congesta* by him; that labelled "n.9" has the note by him "undetermined Ficus from Amboyna June 1809", and two others (10, 11) are named F. conglomerata by him. All these agree with Roxburgh's description and Wight's illustration. Matching them is the recent collection C. B. Robinson 1690 (Amboina) which Merrill determined as *F. congesta* Roxb. On these grounds I list the above synonyms, after the examination of their types. *F. setistyla* Warb., based on Diels 8497 (Queensland), seems to be a mixture; the leaves are those of *F. congesta,* with which I identify it, but the figs in a capsule are those of *F. hispida* (with lateral bracts and strongly hairy style). In the Philippines *F. congesta* seems to grade into *F. benguetensis* Merr.; in Celebes and Borneo it comes near to *F. miqueliana* Corner: in Australia it tends to have smaller figs, as in some collections from New Guinea, and there is a suggestion that it may be geocarpic (unless confused with such a form of *F. hispida*). This Australian form is "F. caudiciflora Solander ms.".

var. **chalmersii** (King) Corner comb. nov.—*F. chalmersii* King, J. As. Soc. Beng. 55 (1887) 406; Ann. R. Bot. Gard. Calc. 1, 2 (1888) App. 6, pl. 230A.—*F. caulothyrsa* Laut. et K. Schum. Fl. Deutsch. Schutzgeb. Suds. (1901) 286.—This has more thickly appressedly hairy twigs, petioles and underside of the nerves. It occurs chiefly in New Guinea.

var. **menadena** (Miq.) Corner comb. nov.—*F. menadena* Miq. Ann. Mus. Bot. Lugd. Bat. 3 (1867) 233, 296.—This is an unusually hairy state from Celebes, represented by twelve collections.

F. schwarzii Koord. Meded. Pl. Tuin Batavia 19 (1898) 607, 644.—Corner, J. Mal. Br. R. As. Soc. 11 (1933) 34, f. 18, 19; Gard. Bull. S.S. 10 (1939) 286, ut *F. miquelii* King.—Koorders cited no collections. One only of his (n. 19252, Minahassa) bears the name *F. schwarzii,* which is written by him, and as it agrees with the brief description, I take it to be the type. It is

the same as the rather common species known in Malaya as *F. miquelii* King. Unfortunately this name cannot be used. King made clear in his description that he intended the name *F. miquelii* to substitute that of *F. caulocarpa* Miq. (Covellia), with the collection de Vriese (Celebes) as type, because he treated *F. caulocarpa* (Covellia) as a homonym of *F. caulocarpa* Miq. (Urostigma). King first wrote *F. caulocarpa* Miq. on many sheets of the Covellia-species and then crossed this name out in most cases and wrote *F. miquelii* King. Hence there is no question which *F. caulocarpa,* as simultaneous homonyms, has priority. The type of *F. caulocarpa* (Covellia) was cited first in the list of collections given by King under *F. miquelii.* I have now examined this specimen at Leiden, where King also studied it, and find that it is unmistakably *F. botryocarpa* Miq. with cystoliths abundant on both sides of the lamina. Accordingly, I reduce *F. miquelii* to *F. botryocarpa.* King's plate of *F. miquelii* represents the Malayan plant which must be called *F. schwarzii* Koord., but the nine other collections which he cited belong to three species, thus:—

Singapore, leg. King; Perak, King's coll. 955, 1883; Burma, Kurz 1520, 3145:—*F. schwarzii* Koord.

Sumatra, Beccari P.S. 544, 631, 761:—*F. ribes* Reinw.

New Guinea, Forbes 903:—*F. congesta* Roxb. v. *chalmersii* (King) Corner.

King's description is a mixture of all these. Thus, even if *F. schwarzii* had not been described, a new name would have had to be made for the Malayan species.

In Celebes, *F. schwarzii* comes close to *F. congesta* Roxb. and to *F. ternatana* Miq., and they need field-investigation.

ser. Tuberculifasciculatae Sata subser. Hispidae Corner

F. hispida Linn. f. var. **badiostrigosa** Corner v. nov.—*F. heterostyla* Merr. J. Arn. Arb. 23 (1942) 158.—Ramuli petiolique pilis obscure brunneis rigidis 2–4 mm. longis strigoso-hispidi, receptacula et costae (subtus) pilis 1–2 mm. longis. Receptacula ad ramulos efoliatos elongatos stoloniformes –6 m. longos, 4–6 mm. crassos, internodis 2–10 cm. longos, geocarpica: pedunculo 4–12 × 1–1.5 mm.: bracteis basalibus 2–2.5 mm. longis: corpore receptaculi 12–15 mm. lato, parviusculo. Semina 0.8 mm. longa. Tonkin, Laos, Annam.

Tonkin:—Balansa 763 (Dong Dang); Petelot 2569, 5664 (Mt. Bavi, typus *F. heterostyla*). Laos:—Poilane 13277 (prov. Savanna Khet, inter Laobao et Muong Non). Annam:—Poilane 7394 (Lien Chien, pr. Tourane), 11134 (Dong co Pat, prov. Quang Tri, typus v. *badiostrigosa,* herb. Paris), 13564 (Quang Tri river, inter L. Bar Ching et L. Da Ban).

var. **rubra** Corner v. nov.—Receptacula 12–15 mm. lata, ad ramulos elongatos efoliatos geocarpica, maturitate rubra: pedunculo –5 mm. longo: bracteis lateralibis 0–2. Ramuli, petiolique pilis obscure brunneis –1 mm. longis hispidi. Folia opposita: stipulae persistentes. China, Annam, in silvis montanis –1,500 m. alt.

In v. *hispida* receptacula semper flavescentia v. brunnescentia, nunquam rubescentia.

A. N. Steward et H. C. Cheo 690, Kwangsi, Ling Yuen Hsien, "3 m. shrub: fruit red, on root of tree"; Poilane 32047 (*typus,* herb. Paris), Annam, 1,000–1,500 m. alt., 6–8 m. tree, fruits red, on runner on soil.

ser. Tuberculifasciculatae Sata subser. Axillares Corner

F. lepicarpa Bl. var. **brevibracteata** Corner v. nov.—Bracteae basales 2–4 mm. longae (v. *lepicarpa* 4–13 mm. longae): bracteae laterales 1–2 v. nullae. Receptacula sessilia, sparsim appresse pilosa. Amboina, Sarawak, North Borneo.

Amboina:—C. B. Robinson 1675, 1676; Barclay 4155 (det. *F. leucantotoma*). Sarawak:—Haviland s.n. (Penkalan Ampat, *typus* herb. Kew). British North Borneo:—For. Dept. A1059 (Sandakan, mixed with *F. septica*).

var. **pedunculata** Corner v. nov.—Receptacula pedunculis 2–8 mm. longis: bracteis basalibus 2–4 mm. longis: bracteis lateralibus paucis v. nullis. Thailand, Borneo.

Thailand:—RFD 7585. Borneo:—Amdjah 790; Jaheri 138; Hallier 469, For. Dept. B.N.B. 1407, 1891, A1163, A2269; Ridley 12327; Winkler 3332 (S.E. Borneo, det. *F. volkameriifolia* Wall., *typus* herb. Leiden).

var. **suluensis** Corner v. nov.—Receptacula brunneo-hispida, pilis –0.5 mm. longis: pedunculo 3–4 mm. longo, brunneo-hispida: bracteis basalibus 3–4 mm. longis: bracteis lateralibus nullis. Sulu Archipelago (Tawi-tawi; PNH 7471, *typus* herb. Manila; PNH 7051; Bur. Sci. 44016).

Folia et ramuli glabri ut in v. *lepicarpa,* receptacula brunneo-hispida ut in *F. carpenteriana* Elmer. Species ambae verae in Tawi-tawi collectae, sed in his numeris ter commixtae?

F. latimarginata Corner sp. nov.—Arbor parva –4 m. alta, ramis paucis, foliis breviuscule petiolatis spiraliter dispositis. Ramuli, petioli, et costae (subtus) pilis brunneis rigidis patentibus 2–4 mm. longis dense hispidi, ad intercostas 1–2 mm. longis: nervuli pilis brevioribus sparsis: laminae pagina superior pilis albidis sparsim hispida, glabrescens. Ramuli 4–6 mm. crassi. Stipulae 25–40 × 15–27 mm., ovato-lanceolatae, brunneo-strigosae, marginibus latis glabris, persistentibus. Lamina –30 × 12 cm., oblongo-elliptica v. elliptico-obovata, apice breviter acuminata –15 mm. longo, basi cuneato-subcordata, ciliato-denticulata, utrimque subscabrida, membranacea, sicco brunnea: costis lateralibus utrinsecus 7–10, subtus valde elevatis, glandulis axillaribus praeditis, etiam saepe ad furcas marginem versus: intercostis numerosis, subtus elevatis: costis basalibus utrinsecus 2–3, brevibus, glandulis basalibus nullis: petiolo 15–25 × 3–4 mm., glandula subnodali nulla. Receptacula axillaria sessilia stipulis semitecta: bracteis basalibus 3, 5–14 × 4–5 mm., lanceolatis, appresse brunneo-pilosis: corpore receptaculi 20–23 mm. lato, subgloboso v. depresso-globoso, bracteis lateralibus nullis, pilis brunneis patentibus 1–2 mm. longis dense hispido, ostiolo subdepresso bracteis apicalibus numerosis occluso: setis internis nullis: cellulis scleroticis ut lamina tenui in strato parietis interno. Flores feminei pedicellati: perianthio brevi tubulari stipitem ovarii rufo-brunnei amplectanti: stylo sparsim puberulo v. glabro. Semina 1.2 mm. longa, subtuberculata, hilo prominenti. Cystolitha hypogena. Celebes (Kjellberg 16494, Todjamboe, 1,000 m. alt., *typus* herb. Stockholm; Kjellberg 2280, Liasa).

Species inquirenda. *F. decipientis* Reinw. affinis, sed lamina nec panduriformi nec dentato-lobata, receptaculis differt et ad *F. calcaratam* Corner proximat. *F. vrieseana* Miq. comparanda.

F. calcarata Corner sp. nov.—King, Ann. R. Bot. Gard. Calc. 1, 2 (1888) 107, pl. 139, ut *F. pungens* Reinw.—Arbor –10 m. alta, foliis brevipetiolatis spiraliter dispositis. Ramuli, petioli, costae (subtus), et receptacula pilis brunneis rigidis patentibus v. curvatis 1–3 mm. longis dense hispidi: laminae pagina superior pilis appressis albidis, secundum nervos hispida. Ramuli 3–5 mm. crassi. Stipulae –30 × 15 mm., ovato-lanceolatae, appresse brunneo-pilosae v. subglabrae, persistentes. Lamina

14–30 × 6.5–18 cm., late elliptica v. obovata, apice breviter acuminata 12–20 mm. longo, basi brevicordata v. subcuneata, denticulata, membranacea, utrimque scabrida, sicco brunnea: costis lateralibus utrinsecus 7–10, marginem versus saepe furcatis, intercostis 5–14 subtus elevatis: costis basalibus utrinsecus 3–4, ad $\frac{1}{4}$–$\frac{1}{3}$ laminae elongatis, glandulis basalibus 2: petiolo 10–30 × 2–4 mm., glandula subnodali nulla. Receptacula axillaria sessilia binata, stipulis plus minus obtecta, dense brunneo-setosa, subglabrescentia: bracteis basalibus 3, 4–11 × 3–6 mm., ovato-lanceolatis, appresse pilosis: corpore receptaculi 15–22 mm. lato, subconico, bracteis lateralibus paucis sparsis parvis v. nullis, ostiolo bracteis apicalibus 5 umbonatis occluso: setis internis nullis v. paucis minutis: cellulis scleroticis in strato parietis interno copiosis. Flores masculi ordinibus duobus instructi: stamen 1. Flores cecidiophori breviter pedicellati: perianthio ovarium fusco-rufum usque ad basim styli tegenti. Flores feminei sessiles v. pedicello rufo –1 mm. longo praediti: perianthio partem dimidiam v. tertiam ovarii rufo-brunnei tegenti v. breviori: stylo sparsim piloso. Semina 1 mm. longa, carinata, aspera, hilo prominenti. Halmaheira, Ternate, Morotai, in silvis primariis et secundariis frequens.

F. pungente Reinw. confusa, floribus diversis: vero *F. decipientis* Reinw. affinis.

Beccari s.n. (Ternate, Acqui Conora, R. Ist. Fir. 9310, det. *F. subcuneata* Miq.); Beguin 1161 (Ternate); Idjan 369 (Halmaheira); Kostermans 1401 (Morotai), 1677 (Morotai, *typus* herb. Leiden); Lam 3649 (Morotai); Pleyte 112 (Ternate), 286 (Halmaheira).

ser. Tuberculifasciculatae Sata subser. Fulvidulae Corner

F. gilapong Miq. Fl. Ind. Bat. Suppl. (1860) 426.—*F. hypogaea* King, Ann. R. Bot. Gard. Calc. 1, 2 (1888) 100, pl. 125.—*F. gilapong* is represented by unidentifiable fragments at Leiden and Utrecht, but there two sheets of sterile material of the type (Teysmann, Battang Baroes, ins. Gilapong) at Bogor. These show that it is identical with *F. hypogeaa.* King described this species from two collections, namely Forbes 2505 (Sumatra), which I take as the lectotype, and Beccari P.B. 2798 (Sarawak), which is *F. uncinata* Becc. A third collection is now known, namely Bangham 983 (Medan-Berastagi road, c. 1,300 m. alt., by the entrance to the sulphur-springs).

F. cereicarpa Corner sp. nov.—Arbor –9 m. alta, foliis longipetiolatis spiraliter dispositis, ramis paucis patulis. Ramuli, folia, et receptacula pilis mollibus fulvidulis appressis v. patentibus 2–3 (–4) mm. longis villoso-tomentosi, lente glabrescentes. Ramuli 4–9 mm. crassi. Stipulae 17–50 mm. longae, appresse tomentosae, subpersistentes. Lamina 13–26 × 6.5–12.5 cm. (–40 × 20 cm., folia juvenilia), elliptica ovata v. obovata, apice acuminata v. attenuato-acuminata –17 mm. longo, basi anguste cordata, ciliato-denticulata v. integra, membranacea laevis, sicco fusco-viridis: costis lateralibus utrinsecus 8–12, marginem versus saepe furcatis et glandula axillari ad furcam praeditis, intercostis –12 (–23, foliis juvenilibus), subtus elevatis: costis basalibus utrinsecus 2–4, brevibus, glandulis basalibus 2: petiolo 20–90 (–150) mm. longo, saepe glandula subnodali praedito. Receptacula in cumulis ad basim trunci, ad ramulos efoliatos –30 × 5 cm., internodis haud elongatis, cauliflora, maturitate e brunneo rubescentia: pedunculo 5–10 mm. longo: bracteis basalibus 3, 5–12 mm. longis, late lanceolatis: corpore receptaculi 20–50 mm. lato (–80 mm. vivo, bracteis exclusis), pyriformibus, furfuraceis dein glabris, bracteis lateralibus late lanceolatis crassis, saepe subverticillatis, numerosis, ostiolum versus incurvatis, ostiolo depresso bracteis apicalibus ordinibus 4–5 umbonatis occluso: setis internis flexuosis copiosis: cellulis scleroticis nullis. Flores masculi ordinibus duobus instructi: stamen 1. Flores neutri in rec. fem. ordinibus 2–3 instructi. Flores cecidiophori sessiles v. pedicellati: perianthio ovarium rufum obtectanti, dein fisso bilobato. Flores feminei 3–4 mm. longi, sessiles v. breviter rubro-pedicellati: perianthio brevi tubulari v. subcupulari, ad basim stipitis ovarii rubri v. basim ovarii amplectanti. Semina 1 mm. longa, vix carinata, asperula v. laevia, hilo parvo haud v. vix prominenti. Cystolitha hypogena. Borneo, in silvis ad 1,600 m. alt., praecipue secundum flumina rivulosque in locis scopulosis, trunco saepe horizontali. Species insignis, foliis ut in *F. francisici* Winkler et *F. gilapong* Miq. sed receptaculis pluribracteatis ut in *F. uncinata* Becc. In Brunei plantas numerosas inspexi.

Kinabalu:—Clemens 26070, 29585, 32561, 34003; Sing. F.n. 26613. Brunei 5315 (Ulu Belalong, *typus* herb. Cambridge). Central Borneo:—Amdjah (Exp. Nieuwenhuis) 402, S. Mendjaloe.

ser. Tuberculifasciculatae Sata subser. Geocarpicae Corner

F. megaleia Corner sp. nov.—Frutex v. arbor parva –7 m. alta, caulibus subcaespitosis, ramis patulis apicibus pendulis. Folia

disticha, maxima, pendula. Ramuli, stipulae, petioli, et costae (subtus) pilis fulvis v. ferrugineis rigidis 1–1.5 mm. longis, v. 2–3 mm. longis, patentibus v. appressis villosi. Ramuli 4–7 mm. crassi. Stipulae 30–70 mm. longae, caducae. Lamina 40–100 × 14–35 cm., elliptica v. oblonga, apice caudato-acuminata 25–40 mm. longo, basi late et inequaliter cordata, uno latere late auriculata et petiolum obtegens, denticulata, supra scabrida v. laevis, subcoriacea v. chartacea, sicco brunnea: costis lateralibus utrinsecus (7–) 9–12, plerumque glandula axillari praeditis, intercostis 10–20 subtus elevatis: costis basalibus 4 + 6 (–7), brevibus: petiolo 10–25 × 4–6 mm., glandula subnodali praedito. Receptacula geocarpica ut in *F. uncinata* Becc. sed plus minus strigosa, glabrescentia: setis internis nullis. Flores feminei et cecidiophori perianthio nullo: stylo glabro. Semina 0.7 mm. longa, subcarinata asperula, haud v. vix rugosa, hilo prominenti. Cystolitha hypogena. Brunei, North and Central Borneo, –1,400 m. alt.

Ob folia maxima, in herbario videtur forma juvenilis *F. uncinatae* Becc., sed plantas multas in Brunei inspexi, et certe distinguenda.

Brunei 5301 (Ulu Belalong, *typus* herb. Cambridge); Clemens 30621 (Kinabalu); Nieuwenhuis 1287 (Central Borneo); Sing. F.n. 26452 (Kinabalu).

F. uncinata Becc. For. Born. (1902) 527.—*F. geocarpa* Teysm. var. *uncinata* (Becc.) King, Ann. R. Bot. Gard. Calc. 1, 2 (1888) 127, pl. 129.—This is a Bornean and Malayan species distinct from *F. geocarpa* (Celebes). In Borneo it is extremely varibale and needs much field-study. Commonly it grows with other species of this subseries and much care is needed to trace the geocarpic fruiting stolons to the right stem: not a few collections appear to me to have become mixed during or after collection. Small herbarium-specimens may not be strictly identifiable.

var. **uncinata.**—Pili 0.5–1.5 mm. longi, brunnei, appressi v. plus minus patentes. Lamina 16–35 × 6–10 cm., ad apicem 30–70 mm. longum attenuato-caudata: costis lateralibus utrinsecus 4–7. Receptacula 15–25 mm. lata (bracteis pilisque exclusis), glabra v. sparsim strigosa. Borneo.

var. **gracilis** Corner v. nov.—Pili ut in v. *uncinata.* Lamina 9–24 × 2.5–5 cm., lanceolato-oblonga, ad apicem 20–35 mm. longum attenuata; costis lateralibus utrinsecus 4–6. Receptacula

12–15 mm. lata, strigoso-villosa, bracteis lateralibus gracilibus hispidis. Brunei (Brunei 5303, S. Belalong, *typus* herb. Cambridge; Corner s.n. Kuala Belait, 22.2. 59).

var. **parva** Corner v. nov.—Pili 1–1.5 mm. longi. patentes, albidae, ad nervulos appressi. Lamina 12–20 × 3–6 cm., lanceolato-obovata, apice abrupte caudato-acuminata 15–25 mm. longo: costis lateralibus utrinsecus 8–11. Receptacula 15–20 mm. lata, glabra. Brunei (Andulau For. Reserve, Corner s.n. Feb. 1959, *typus* herb. Cambridge).

var. **pilosior** Corner v. nov.—Pili 2–4 mm. longi, brunnei erecti. Lamina 20–45 × 7–16 cm., elliptico-obovata, apice abrupte acuminata –25 mm. longo: costis lateralibus 10–13. Receptacula 20–25 mm. lato, sparsim strigosa glabrescentia. Borneo.

Beccari 2798 (Sarawak, det. *F. hypogaea*); Clemens (Kinabalu) 10336, 20708, 26637, 28476, 29092, 29719, 32803, 33968, 34231, 34387, 50030; Hallier 2576 (Lianggagang); Sing. F.n. 26722, 27813 (Kinabalu); Teysmann 11314 (Landah); Brunei 5302 (S. Belalong, *typus* herb. Cambridge).

var. **strigosa** Corner v. nov.—Corner, J. Mal. Br. R. As. Soc. 11 (1933) 17, f. 5–7, ut *F. geocarpa* Teysm.—Pili 1–2.5 mm. longi, brunnei, erecti v. appressi. Lamina 10–36 × 4–15 cm., oblongo-elliptica v. elliptico-obovata, apice abrupte acuminata 12–24 mm. longo, basi uno latere late auriculata: costis lateralibus utrinsecus 6–9. Receptacula 12–25 mm. lata, dense strigosa, haud glabrescentia. Malaya, Lingga, Borneo.

Lingga:—Teysmann 7083. Malaya (Johore usque ad Perak et Trengganu):—Sing. F.n. 25946 (*typus*, herb. Singapore), 26040; Ridley 11036. Borneo:—Beccari 2901, 2797; W. M. A. Brooke 10249, 10522; Clemens 10489, 21911; Endert 2429, 3486; Nieuwenhuis 104, 292; Teysmann 7107.

var. **truncata** Corner v. nov.—Pili 0.5–1 mm. longi, appressi brunnei. Lamina 16–27 × 5.5–9 cm., oblongo-elliptica v. obovata, apice abrupte acuminata 12–20 mm. longo, basi inaequalis et oblique truncata, uno latere cuneata altero subcordata v. subauriculata: costis lateralibus utrinsecus 9–11. Brunei (Brunei 5329, Ulu Belalong, *typus* herb. Cambridge).

F. beccarii King, Ann. R. Bot. Gard. Calc. 1, 2 (1888) 102, pl. 130.

var. **beccarii**.—Lamina 3–6 cm. lata, lanceolata, basi symmetrica anguste cuneata. Pili –1 mm. longi.

var. **asymmetrica** Corner v. nov.—Lamina 26–38 × 7.5–11 cm., oblongo-elliptica v. obovata, apice plus minus abrupte acuminata 25–45 mm. longo, v. attenuata, basi asymmetrica uno latere anguste cuneata altero latiuscule subcordata: costis lateralibus utrinsecus 7–9. Receptacula bracteis lateralibus 2–3 mm. longis parvis praedita. Semina 0.6–0.7 mm. longa. Sarawak (Corner s.n., Kuching, Bt. Kuap, Jan. 1959, *typus* herb. Cambridge).

var. **latifolia** Corner v. nov.—Lamina 5–10 cm. lata, elliptica v. late lanceolata, basi symmetrica late cuneata: costis lateralibus utrinsecus 9–12. North Borneo (Brunei 5305; Brunei 5322, S. belalong, *typus* herb. Cambridge; For. Dept. BNB 1610).

Plantas multas inspexi, a v. *beccarii* semper foliis latioribus diversas.

F. geocharis Corner sp. nov.—Arbor –13 m. alta, ramis patulis, foliis distichis. Ramuli, petioli, et receptacula pilis fulvidis rigidis patentibus 1.5–2.5 mm. longis hispidi: costae subtus pilis brevioribus sparsim hispidae, nervuli hispiduli: laminae pagina superior, praeter costas, glabra. Ramuli 2–3 mm. crassi. Stipulae 15–38 mm. longae, lanceolatae, persistentes. Lamina 15–30 × 5–9 cm., elliptica v. oblongo-lanceolata, apice abrupte acuminata 20–60 mm. longo, basi subasymmetrica, uno latere anguste cuneata altero anguste auriculata (auricula 5–7 mm. longa et lata), subdenticulata v. integra, laevis, nitida, membranacea, sicco supra griseo-fusca, subtus brunneola: costis lateralibus utrinsecus 6–8 (–10), intercostis –12, subtus leviter elevatis: costis basalibus 1 (–2) + 4, brevibus: petiolo 4–9 mm. longo, glandula subnodali praedito. Receptacula geocarpica ad ramulos efoliatos stipulatos stoloniformes –3 m. longos, 3–4 mm. crassos, e basi trunci orientes, maturitate rubro-purpurea: pedunculo 1.5–4 mm. longo: bracteis basalibus haud distinctis: pedicello nullo: corpore receptaculi 16–20 mm. lato, dense fulvo-hispido glabrescenti, bracteis lateralibus numerosis lanceolatis –9 mm. longis, basim et ostiolum versus brevioribus confertis: setis internis et cellulis scleroticis nullis. Flores masculi ordinibus duobus instructi: stamen 1. Flores feminei et cecidiophori pedicello 0.5–3 mm. longo praediti: perianthio nullo v. in flor. cecid. ut linea vix elevata ad apicem stipitis ovarii fusco-rubri, rarius uno latere spathulato. Semina ut in *F. uncinata* Becc. Cystolitha hypogena. Borneo.

Inter *F. beccarii* King et *F. uncinatam* Becc., sed nec huic nec illi referenda.

Clemens 21912 (Sarawak, Upper Rejang River, *typus* herb. Br. Mus.); Corner s.n. 2.2.59 (Sarawak, Kuching, Bt. Kuap); For. Dept. B.N.B. 2864 (Bettotan).

F. subterranea Corner sp. nov.—Frutex v. arbor parva –5 m. alta, ramis patulis, foliis distichis. Ramuli, petioli, stipulae, et costa (subtus) pilis albidis v. fulvidulis minutis 0.1–0.3 mm. longis appressis sparsim vestiti: laminae pagina superior glabra v. nervos secundum puberula. Ramuli 1–2 mm. crassi, graciles. Stipulae 15–30 mm. longae, caducae. Lamina 11–26 × 3–8 cm., anguste elliptico-obovata, apice abrupte acuminata 12–25 mm. longo, basi late v. anguste cuneata, symmetrica v. subasymmetrica, integra, membranacea, supra glabra v. subscabrida, sicco viridis: costis lateralibus utrinsecus 11–15, majoribus apicem laminae versus glandula axillari praeditis, intercostis strictis 10–20 subtus haud elevatis: costis basalibus utrinsecus 1, brevibus: petiolo 5–14 mm. longo, glandula subnodali parva praedito. Receptacula glabra subterranea ad ramulos graciles stoloniformes efoliatos, albida: pedunculo 1–3 mm. longo; bracteis basalibus haud distinctis: corpore receptaculi 14 mm. lato, bracteis lateralibus uncinatis 2–4 mm. longis numerosis: setis internis et cellulis scleroticis nullis. Flores feminei perianthio nullo: ovario stipitato: stylo glabro. Semina 0.6 mm. longa, subcarinata, vix rugosa. Cystolitha hypogena. Brunei (S. Belalong, Brunei 5306; Brunei 5327, *typus* herb. Cambridge).

F. beccarii King affinis sed receptaculis glabris, intercostis confertis numerosis haud subtus elevatis, lamina supra scabrida differt.

ser. Tuberculifasciculatae subser. Tuberculifasciculatae

F. septica Burm. f. var. **cauliflora** Corner v. nov.—Summerhayes, J. Arn. Arb. 22 (1941) 97, sub *F. septica*.—Receptacula cauliflora ad ramulos efoliatos –50 cm. longos, 3–5 mm. crassos, ad basim 10 mm. crassos, internodis –4 cm. longis, (stoloniformes ?), racemoso-glomerata: pedunculo 8–12 mm. longo: bracteis basalibus 2–2.5 mm. longis: corpore receptaculi 15–20 mm. lato (20–25 mm., vivo). Timor Laut, Admiralty Isl., Solomon Isl., Santa Cruz, New Hebrides, Queensland.

Var. *septica* nunquam cauliflora.

E. S. Brown 5482 (Solomon Isl., San Cristoval, Kira Kira, *typus* herb. Br. Mus.); Forbes 3364 (Timor Laut); Kajewski 579 (Santa Cruz Isl., Vanikoro); Mosely s.n. (Admiralty Isl.); Morrison s.n. (New Hebrides, Eromanga, Polenia Bay); S. T. Blake 15016, 15212, 15282 (Queensland, Cook District).

var. **salicifolia** Corner v. nov.—*F. laxiramea* Elmer, Leafl. Philip. Bot. 4 (1911) 1257.—*F. brunnea* Merr. Philip. J. Sci. 18 (1921) 56.—*F. linearis* Merr. id. 65.—Lamina 5–17.5 × 0.6–5.5 cm., lanceolata v. lanceolato-elliptica: costis lateralibus utrinsecus 7–13. Receptacula pedunculata v. sessilia, 10–14 mm. lata. Philippine Isl., Celebes.

Ahern 3509 (? 3504), 6319; Bur. Sci. 1605 (syntype, *F. brunnea*), 17433 (type, *F. linearis*), 20900, 24338 (syntype, *F. brunnea*), 24477, 34717, 36575, 43811; Elmer 10786 (type, *F. laxiramea*); Merrill Sp. Blancoanae 522; PNH 1577, 6067, 7865, 9986 (*typus*, v. *salicifolia* herb. Manila), 10030, 13699, 13670; Sablaya 6; Univ. Philip. 4066, 4294; Vidal 3797; Kjellberg 1542 (Celebes, Rante Lemo).

F. fistulosa Reinw. var. **lucbanensis** (Elmer) Corner comb. nov.—*F. lucbanensis* Elmer, Leafl. Philip. Bot. 1 (1907) 254.—*F. curranii* Merr. Philip. J. Sci. 5 (1910) 343.—I can find no satisfactory specific difference from *F. fistulosa* yet, if the figs were ridged, v. *lucbanensis* could be referred to *F. septica*. It suggests a hybrid, yet it has not been found in Java or Sumatra where the two species also overlap.

F. dimorpha King var. **scabra** Corner v. nov.—Lamina utrinque scabra. Mentawei Isl.

Iboet 25 (Siberut Isl.), 449 (Sipora Isl., *typus* herb. Leiden); Sing. F.n. 10497 (Siberut, det. *F. polysyce* Ridley).

F. tarennifolia Corner sp. nov.—Arbor –13 m. alta, foliis brevipetiolatis plerumque oppositis, aliquando laxe spiraliter dispositis v. distichis. Glabra v. petioli, nodi, et costae (subtus) sparsim appresse albido-pilosi. Ramuli 2–3 mm. crassi. Stipulae –20 mm. longae, caducae. Lamina 7–21 × 2–8 cm., lanceolato-elliptica v. lanceolato-obovata, ad apicem acutum attenuata, haud v. vix acuminata, basi cuneata, serrulata v. denticulata, aliquando integra, membranacea, laevis, sicco brunnea: costis lateralibus utrinsecus 5–11 (–12), curvatis, intercostis 1–3 (–5) laxis, subtus haud v. vix elevatis: costis basalibus utrinsecus 1, brevibus: petiolo 6–20 (–25) mm. longo, glandula subnodali nulla. Receptacula cauliflora ad ramulos efoliatos e basi trunci, ut ramulos stoloniformes evolventes dein geocarpica, binata, maturitate e brunneo rubescentia: pedunculo 5–12 mm. longo: bracteis basalibus 3, 1–2 mm. longis: pedicello 0–4 mm.: corpore receptaculi 12–15 × 10–13 mm. (18–20 × 17–19 mm., vivo), pyriformi v. subgloboso, bracteis lateralibus nullis, ostiolo

plano bracteis apicalibus parvis numerosis occluso: setis internis nullis: cellulis scleroticis nullis v. in rec. cecid. paucis. Flores masculi ordinibus 1–2 instructi: stamen 1. Flores cecidiophori sessiles v. breviter pedicellati: ovarium fusco-rubrum perianthio obtectum. Flores feminei sessiles v. breviter pedicellati: perianthio brevissimo ut collare circum stipitem ovarii rufo-brunnei: stylo glabro v. sparsim piloso. Semina 1 mm. longa, subcarinata, subtuberculata, hilo parvo prominenti. Cystolitha hypogena. North Borneo (Kinabalu), in silvis montanis 1,000–2,500 m. alt. *F. fistulosae* Reinw. varietatibus lanceifoliis similis sed receptacula geocarpica rubescentia. Forsan *F. arfakensis* King affinior.

Clemens 28290, 29415, 30182, 30511, 30745, 30870, 32149, 32468, 33113, 33709, 33831, 34086, 34094, 34457, 40048, 40182; Sing. F.n. 26882, 27510 (*typus*, herb. Singapore); Kepong F.n. 80534.

F. ixoroides Corner sp. nov.—Frutex multo-ramosus, ramulis ascendentibus, foliis brevipetiolatis decussatis v. spiraliter dispositis. Glabra v. ramuli juvenes villosuli. Ramuli 2 mm. crassi, fusco-brunnei. Stipulae –20 mm. longae, caducae. Lamina 6–13 × 1.2–2 cm., lanceolata v. oblongo-lanceolata, attenuato-acuminata, basi anguste cuneata, integra, laevis, subcoriacea, sicco griseo-brunnea: costis lateralibus utrinsecus 8–12, angulo lato exeuntibus, subtus leviter elevatis, intercostis nullis: costis basalibus utrinsecus 1, brevibus: petiolo 5–15 mm. longo, glandula subnodali praedito. Receptacula axillaria solitaria: pedunculo 2–4 mm. longo: bracteis basalibus 3, 1 mm. longis: corpore receptaculi 9–11 mm. lato, subgloboso, bracteis lateralibus nullis, ostiolo plano bracteis apicalibus 5 parvis occluso: setis internis et cellulis scleroticis nullis. Flores feminei sessiles v. pedicellati: perianthio brevissimo circum stipitem ovarii rufo-brunnei tubulari: stylo glabro. Semina subtuberculata, hilo prominenti. Cystolitha hypogena. Sarawak, North Borneo, riparia. Forsan species alicujus forma salicifolia riparia reducta, ut *F. fistulosa* Reinw. v. *F. tarennifolia* Corner.

Beccari P.B. 2781 (R. Ist. Fir. 9239, Sarawak, Ramo Sud, *typus* herb. Florence); Amdjah 226 (B.N.B., Loembis).

F. pleyteana Corner sp. nov.—Arbor –10 m. alta, foliis lanceolatis brevipetiolatis distichis. Ramuli, petioli, et costae (subtus) pilis brunneolis appressis –1 mm. longis vestiti, nervuli pilis brevioribus pallidis: laminae pagina superior pilis appressis pallidis

sparsa. Ramuli 1.5–2 mm. crassi. Stipulae 10–20 mm. longae, lanceolatae, appresse pilosae, persistentes. Lamina 5–14 × 1.2 cm., lanceolata, apice subacuminata v. attenuata 10–20 mm. longo, basi cuneata et leviter inequalis, integra v. minute subdenticulata, laevis, membranacea, sicco brunnea: costis lateralibus utrinsecus 7–9, obliquis, intercostis 1–5 laxis, subtus vix elevatis: costis basalibus utrinsecus 1, brevibus, glandulis basalibus nullis: petiolo 3–5 mm. longo, glandula subnodali nulla. Receptacula axillaria solitaria et plerumque geocarpica ad ramulos stoloniformes efoliatos –90 cm. longos, ad basim 4–7 mm. crassos, internodis 20–35 mm. longis, apicibus stipulatos, e basi trunci orientes, pilis brunneolis appressis vestita: pedunculo 2–4 × 1.5 mm.: bracteis basalibus 3, 3–4 mm. longis, lanceolatis, acutis: corpore receptaculi 10–12 mm. lato, subgloboso, quinquecostato, bracteis lateralibus nullis, ostiolo plano bracteis apicalibus 5 umbonatis occluso: setis internis nullis v. paucis brunneolis: cellulis scleroticis in strato parietis interno copiosis. Flores feminei sessiles v. breviter pedicellati: perianthio brevissimo: ovario sessili v. stipitato fusco-rubro: stylo sparsim piloso. Semina subtuberculata, carinata, hilo vix prominenti. Cystolitha hypogena. Halmaheira (Pleyte 378, G. Sembilan, 600 m. alt., *typus* herb. Leiden).

F. ternatanae Miq. affinis et forsan varietas sed foliis angustioribus, stipulis haud caducis, bracteis basalibus longioribus.

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(*a*) New taxa and binomials in **bold** print.
(*b*) Taxonomic synonyms in *italics*.

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